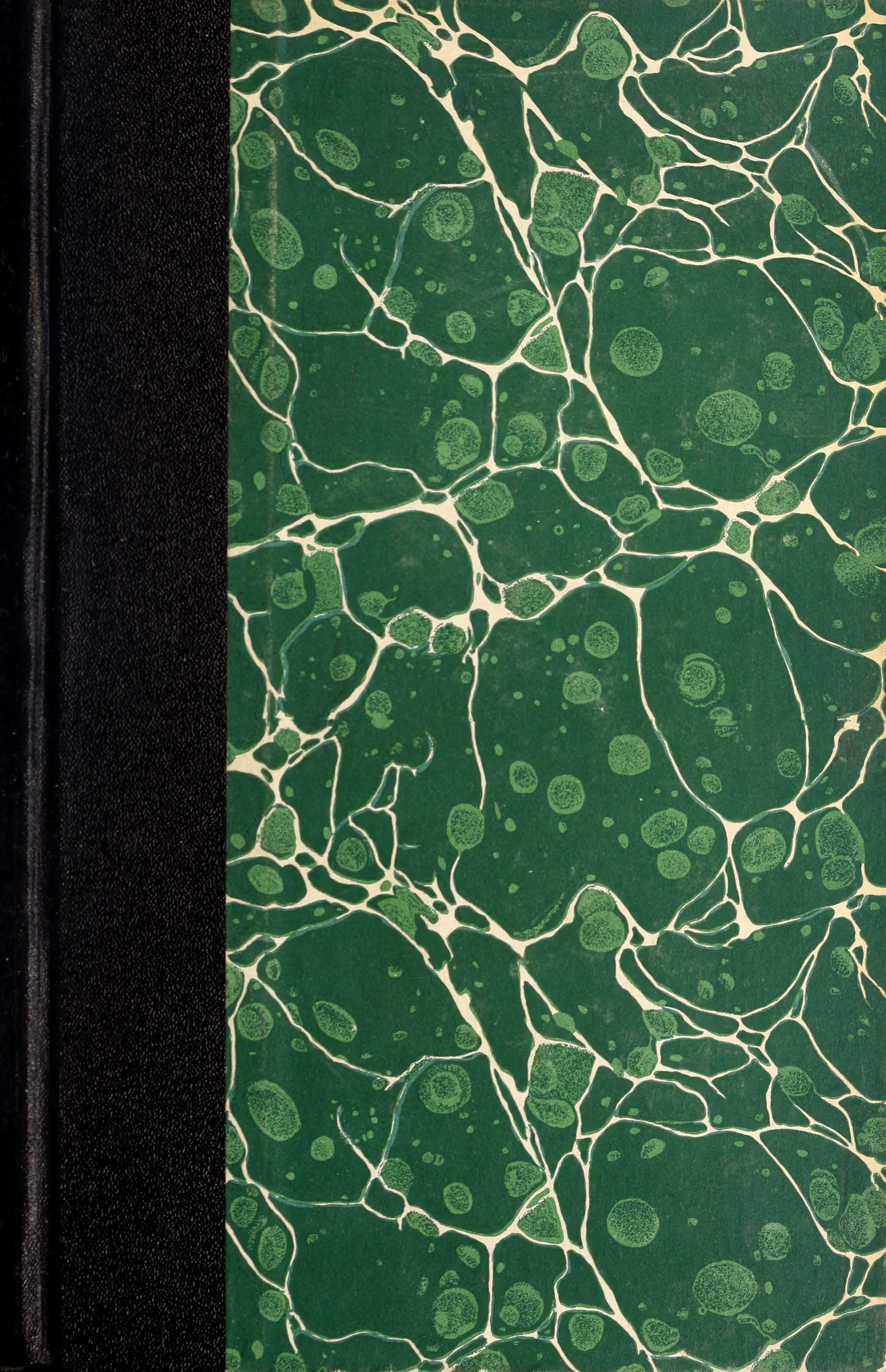

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List of Abbreviations.

Aarb.	Aarbog.
Aarsb.	Aarsberetning.
Abh.	Abhandlung.
Abs.	Abstract.
Acad.	Academia, Académie, Academy.
Accad.	Accademia.
Afr.	Africa.
Agric.	Agricultural.
Akad.	Akademie.
Am.	America, American.
An.	Anales, Anuario.
Ann.	Annalen, Annales, Annali, Annals, Annual.
Anst.	Anstalt.
Anthrop.	Anthropological.
Antiq.	Antiquarian, Antiquaries.
Anz.	Anzeiger.
Arch.	Archives.
Argent.	Argentina.
Ark.	Arkiv.
Art.	Article.
Asiat.	Asiatic.
Austr.	Australia.
Austral.	Australasia.
bayer.	bayerisch.
B.C.	British Columbia.
Beitr.	Beitrag, Beiträge.
Belg.	Belgique.
Ber.	Bericht, Berichte.
Bibl.	Bibliographie.
Bol.	Boletin.
Boll.	Bollettino.
Bot.	Botanik, botanisch.
Brit.	British.
Brux.	Bruxelles.
Bull.	Bulletin.
Bur.	Bureau.
Calif.	California.
Canad.	Canadian.
Centralbl.	Centralblatt.
Chem.	Chemical.
Cienc.	Ciencias.

cient.	cientifica.
Coll.	Collection, College, Colliery.
Com.	Comitato, Comité.
Comm.	Commission.
Communic.	Communicações.
Comp.	Comparative.
Conch.	Conchyliologie.
Connect.	Connecticut.
Conserv.	Conservation.
C. R.	Compte rendu.
Dan.	Danmarks.
Delfstoff.	Delfstoffen.
Denkschr.	Denkschriften.
Dep.	Department.
E.	East.
E. & W.	England & Wales.
Earthq.	Earthquake.
Econ.	Economic.
Edinb.	Edinburgh.
Elsass-Lothr.	Elsass-Lothringen.
Eng.	Engineers, Engineering.
Erdk.	Erdkunde.
Ergebn.	Ergebniss.
Erläut.	Erläuterung.
Exped.	Expedition.
f.	för, für.
F.-C.	Field-Club.
Földt.	Földtani.
Fören.	Förening.
Förh.	Förhandling.
franç.	français.
fribourg.	fribourgeoise.
Ged.	Gedeelte.
Geogn.	Geognostisch.
Geogr.	Geographical, Geography, geographisch.
Géogr.	Géographie.
Geol.	Geologicæ, Geological, geológico, geologisch, geologisk, Geologists', Geology.

Géol.	Géologie, géologique.
Geophys.	Geophysik.
Geotechn.	Geotechnisch.
Gesellsch.	Gesellschaft.
glac.	glacialogico.
Gletscherk.	Gletscherkunde.
Govt.	Government.
Gr. Br.	Great Britain.
Guard.	Guardian.
Handb.	Handbuch.
Handl.	Handlingar.
Helv.	Helvetiæ.
Hist.	Histoire, History.
hütt.	hüttenmännisch.
Hüttenw.	Hüttenwesen.
Idrogr.	Idrografico.
Ill.	Illinois.
Imp.	Imperial.
Ind.	Industrial, Industries.
Ing.	Ingenieros.
Inst.	Institute, Institution, Instituto.
Ist.	Istituto.
Ital.	Italia, italiano, italico.
Jaarb.	Jaarboek.
Jahrb.	Jahrbuch.
Jahresb.	Jahresbericht.
Jahresh.	Jahresheft.
Journ.	Journal.
k.	kaiserlich, königlich, kongelig.
Komm.	Kommission.
Közl.	Közlöny.
Kryst.	Krystallographie.
Lab.	Laboratoire.
Landesanst.	Landesanstalt.
Leop.-Car.	Leopoldinisch-Carolinisch.
Linn.	Linnean, Linnéenne.
Lit.	Literary.
lomb.	lombardo.
Mag.	Magazine.
Magistr.	Magistrato.
Malac.	Malacological, Malacologique.
Manch.	Manchester.
Matér.	Matériaux.
M.E.	Mining Engineers.
M. & M.	Mining & Metallurgy.
Mech.	Mechanical.
méd.	médicale.
Meddel.	Meddelelser.
Mededeel.	Mededeeling.
Mem.	Memoirs, Memorias.
Mém.	Mémoires.
Micr.	Microscopical.
Mijnw.	Mijnwezen.
Min.	Mineral, Mineralogi, Mineralogie, Mineralogical, mineralogico, minéralogique, mineralogisch, Mineralogy.
Mindeskr.	Mindeskrift.
Misc.	Miscellaneous.
Mitt.	Mitteilung.
Monatsb.	Monatsbericht.
Monogr.	Monograph, Monographia, Monographie.
Mus.	Musée, Museo, Museum, Muséum.
N.	North.
nac.	nacional.
Nat.	National, Natural, naturelle, naturali, Naturalist.
Naturf.	Naturforscher, naturforschend.
naturh.	naturhistorisch.
Naturk.	Naturkunde.
Naturw.	Naturwissenschaft.
Ned. O.-Ind.	Nederlandsch Oost-Indië.
N.J.	New Jersey.
Norm.	Normandie.
Notizbl.	Notizblatt.
nouv.	nouvelle.
N.S.	Nova Scotia.
N.S.W.	New South Wales.
N.Y.	New York.
N.Z.	New Zealand.
Obs.	Observatory.
Occ.	Occasional.
ökonom.	ökonomisch.
Op.	Operations.
Overs.	Oversigt.
Pal.	Palæontologia, Palæontological.
Paléont.	Paléontologie.
Paléozool.	Paléozoologie.
Peterm.	Petermanns.
petr.	petrographisch.
Phil.	Philosophical.
Philad.	Philadelphia.
Phys.	Physical, Physique.
physik.	physikalisch.
prakt.	praktisch.
Prehist.	Prehistoric.
preuss.	preussisch.
Proc.	Proceedings.
Proc.-verb.	Procès-verbaux, Processi-verbali.
Prof.	Professional.
Progr.	Progress.
Pubbl.	Pubblicazione.
Publ.	Publication.
Quart.	Quarterly.
Queensl.	Queensland.
R.	Real.
Rec.	Records.
Reg.	Regional.
Reichsanst.	Reichsanstalt.
Rendic.	Rendiconti.
Rep.	Report.
Res.	Resources.

Rev.	Review, Revista, Revue.
Rheinl.	Rheinland.
Rijksop.	Rijksopsporing.
Riv.	Rivista.
Roy.	Royal.
Rundsch.	Rundschau.
S.	South.
Salinenw.	Salinenwesen.
Samml.	Sammlung.
Schr.	Schrift.
Schwed.	Schwedisch.
Sci.	Science, Scientific, scientifique, Scienze.
Scott.	Scottish.
Secr.	Secretary.
Sect.	Section.
Seism.	Seismological.
Selsk.	Selskab.
Senckenberg.	Senckenbergisch.
Serv.	Service, Serviço.
Siebenbürg.	Siebenbürgisch.
Sitz.	Sitzungsbericht.
Skrift.	Skrifter.
Smithson.	Smithsonian,
Soc.	Sociedad, Société, Society.
Staatsanst.	Staatsanstalt.
Stockh.	Stockholm.
Summ.	Summary.
Surv.	Survey.
Sver.	Sverige.
Techn.	Technologists.
Tidsskr.	Tidsskrift.
tosc.	toscana.
Trans.	Transactions.
u.	und.
Uff.	Ufficio.
Undersög.	Undersögelse.
Undersök.	Undersökelse.
Undersökn.	Undersökning.
ung.	ungarisch.
Univ.	Università, Université, University.
U.S.	United States.
vaud.	vaudois.
Ver.	Verein.
Verh.	Verhandlung.
Vet.-Akad.	Vetenskaps-Akademie.
Vidensk.	Videnskaberne.
W.	Western.
Wash.	Washington.
Wissensch.	Wissenschaft, wissenschaftlich.
Yorks.	Yorkshire.
Zeitschr.	Zeitschrift.
Zentralbl.	Zentralblatt.
Zool.	Zoological, Zoology.

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List of Abbreviations.

Aarb.	Aarbog.
Aarsb.	Aarsberetning.
Abh.	Abhandlung.
Abs.	Abstract.
Acad.	Academia, Académie, Academy.
Accad.	Accademia.
Adv.	Advancement.
Afr.	Africa.
Agric.	Agricoltura, Agricultural.
Akad.	Akademie.
Am.	America. American.
An.	Anales, Anuario.
Ann.	Annalen, Annales, Annali, Annals, Annual.
Anst.	Anstalt.
Anthrop.	Anthropological.
Antiq.	Antiquarian, Antiquaries.
Anz.	Anzeiger.
Arch.	Archives.
Argent.	Argentina.
Ark.	Arkiv.
Art.	Article.
Asiat.	Asiatic.
Assoc.	Association.
Austr.	Australia.
Austral.	Australasia.
bayer.	bayerisch.
B.C.	British Columbia.
Beitr.	Beitrag, Beiträge.
Belg.	Belgique.
Ber.	Bericht, Berichte.
Bibl.	Bibliographie.
Bol.	Boletin.
Boll.	Bollettino.
Bot.	Botanik, botanisch.
Brit.	British.
Brux.	Bruxelles.
Bull.	Bulletin.
Bur.	Bureau.
Calif.	California.
Canad.	Canadian.
Centralbl.	Centralblatt.
Chem.	Chemical.
Cienc.	Ciencias.
cient.	científica.
Coll.	Collection, College, Colliery.
Com.	Comitato, Comité.
Comm.	Commission.
Communic.	Communicações.
Comp.	Comparative.
Conch.	Conchyliologie.
Congr.	Congrès, Congreso.
Connect.	Connecticut.
Conserv.	Conservation.
C. R.	Compte-Rendu.
crit.	critique.
Danm.	Danmarks.
Delfstoff.	Delfstoffen.
Denkschr.	Denkschriften.
Dep.	Department.
E.	East.
E. & W.	England & Wales.
Earthq.	Earthquake.
Econ.	Economic.
Edinb.	Edinburgh.
Elsass-Lothr.	Elsass-Lothringen.
Eng.	Engineers, Engineering.
Erdb.	Erdbeben.
Erdk.	Erdkunde.
Ergebn.	Ergebniss.
Erläut.	Erläuterung.
Exped.	Expedition.
f.	för, für.
F.-C.	Field-Club.
Földt.	Földtani.
Fören.	Förening.
Förh.	Förhandling.
Fortschr.	Fortschritte.
franç.	français.
fribourg.	fribourgeoise.
Ged.	Gedeelte.
Geogn.	Geognostisch.

Geogr.	Geografia, Geographical, Geography, geographisch.
Géogr.	Géographie.
Geol.	Geologicæ, Geological geológico, geologisch, geologisk, Geologist's, Geology.
Géol.	Géologie, géologique.
Geophys.	Geophysik.
Geotechn.	Geotechnisch.
Gesellsch.	Gesellschaft.
glac.	glacialogico.
Gletscherk.	Gletscherkunde.
Govt.	Government.
Gr. Br.	Great Britain.
Guard.	Guardian.
Handb.	Handbuch.
Handl.	Handlingar.
Heilk.	Heilkunde.
Helv.	Helvetiæ.
Hist.	Histoire, History.
hüttenm.	hüttenmännisch.
Hüttenw.	Hüttenwesen.
Idrogr.	Idrografico.
Ill.	Illinois.
Imp.	Imperial.
Ind.	Industria, Industrial, Industries.
Ing.	Ingenieros.
Inst.	Institute, Institution, Instituto.
Ist.	Istituto.
Ital.	Italia, italiano, italico.
Jaarb.	Jaarboek.
Jahrb.	Jahrbuch.
Jahresb.	Jahresbericht.
Jahresh.	Jahresheft.
Journ.	Journal.
k.	kaiserlich, königlich, kongelig.
Komm.	Kommission.
Közl.	Közlöny.
Krist.	Kristallographie.
Lab.	Laboratoire.
Landesanst.	Landesanstalt.
Leop.-Car.	Leopoldinisch-Carolinisch.
Linn.	Linnean, Linnéenne.
Lit.	Literary.
lomb.	lombardo.
Mag.	Magazine.
Magistr.	Magistrato.
Malac.	Malacological, Malacologique.
Manch.	Manchester.
Matér.	Matériaux.
M.E.	Mining Engineers.
M. & M.	Mining & Metallurgy.
Mech.	Mechanical.
méd.	médicale.
Meddel.	Meddelelser.
Mededeel.	Mededeeling.
Mem.	Memoirs, Memorias.
Mém.	Mémoires.
Micr.	Microscopical.
Mijnw.	Mijnwezen.
Min.	Mineral, Mineralogi, Mineralogie, Mineralogical, mineralogico, minéralogique,mineralogisch, Mineralogy.
Mindeskr.	Mindeskrift.
Misc.	Miscellaneous.
Mitt.	Mitteilung.
Monatsb.	Monatsbericht.
Monogr.	Monograph, Monographia, Monographie.
Mus.	Musée, Museo, Museu, Museum, Muséum.
N.	North.
nac.	nacional.
Nat.	National, Natural, naturale, naturelle, naturali, Naturalist.
Naturf.	Naturforscher, naturforschend.
naturh.	naturhistorisch.
Naturk.	Naturkunde.
Naturw.	Naturwissenschaft.
Ned. O.-Ind.	Nederlandsch Oost-Indië.
N.J.	New Jersey.
Norm.	Normandie.
Notizbl.	Notizblatt.
nouv.	nouvelle.
N.S.	Nova Scotia.
N.S.W.	New South Wales.
N.Y.	New York.
N.Z.	New Zealand.
Oberhess.	Oberhessisch.
Obs.	Observatory.
Occ.	Occasional.
ökonom.	ökonomisch.
Op.	Operations.
Overs.	Oversigt.
Palæont.	Palæontologia, Palæontological.
Palæontogr.	Palæontographical.
Paléont.	Paléontologie.
Paléozool.	Paléozoologie.
Peterm.	Petermanns.
Petr.	Petrographie, petrographisch.
Phil.	Philosophical.
Philad.	Philadelphia.
Phys.	Physical, Physique.
physik.	physikalisch.
prakt.	praktisch.
Prehist.	Prehistoric.
preuss.	preussisch.
Proc.	Proceedings.
Proc.-verb.	Procès-verbaux, Processi-verbali.
Prof.	Professional.

Progr.	Progress.
Pubbl.	Pubblicazione.
Publ.	Publication.
Quart.	Quarterly.
Queensl.	Queensland.
R.	Real.
Rec.	Records.
Reg.	Regional.
Reichsanst.	Reichsanstalt.
Rendic.	Rendiconti.
Rep.	Report.
Res.	Resources.
Rev.	Review, Revista, Revue.
Rheinl.	Rheinland.
Rijksop.	Rijksopsporing.
Riv.	Rivista.
Roy.	Royal.
Rundsch.	Rundschau.
S.	South.
Salinenw.	Salinenwesen.
Samml.	Sammlung.
Schr.	Schrift.
Schwed.	Schwedisch.
Sci.	Science, Scienze, Scientific, scientifique.
Scott.	Scottish.
Secr.	Secretary.
Sect.	Section.
Seism.	Seismological.
Selsk.	Selskab.
Senckenberg.	Senckenbergisch.
Serv.	Service, Serviço.
Siebenbürg.	Siebenbürgisch.
Sism.	Sismologica.
Sitzb.	Sitzungsbericht.
Skrift.	Skrifter.
Smithson.	Smithsonian,
Soc.	Sociedad, Società, Société, Society.
Staatsanst.	Staatsanstalt.
Stockh.	Stockholm.
Summ.	Summary.
Surv.	Survey.
Sver.	Sverige.
Techn.	Technologists.
Tidsskr.	Tidsskrift.
tosc.	toscana.
Trab.	Trabajos.
Trans.	Transactions.
Treb.	Treballs.
Trig.	Trigonometrical.
u.	und.
Uff.	Ufficio.
Undersög.	Undersögelse.
Undersök.	Undersökelse.
Undersökn.	Undersökning.
ung.	ungarisch.
Univ.	Università, Université, University.
U.S.	United States.
vaud.	vaudois.
Ver.	Verein.
Verh.	Verhandlung.
Vet.-Akad.	Vetenskaps-Akademie.
Vidensk.	Videnskaberne.
Vulk.	Vulkanologische.
W.	Western.
Wash.	Washington.
Wissensch.	Wissenschaft, wissenschaftlich.
Yorks.	Yorkshire.
Zeitschr.	Zeitschrift.
Zentralbl.	Zentralblatt
Zool.	Zoological, Zoology.

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List of Abbreviations.

Aarb.	Aarbog.
Aarsb.	Aarsberetning.
Abh.	Abhandlung.
Abs.	Abstract.
Abt.	Abteilung.
Acad.	Academia, Académie, Academy.
Accad.	Accademia.
Adv.	Advancement.
Afr.	Africa, African.
Agric.	Agricoltura, Agricultural.
Akad.	Akademie.
Am.	America, American.
An.	Anales, Anuario, Anuarul.
Ann.	Annalen, Annales, Annali, Annals, Annual.
Anst.	Anstalt.
Anthrop.	Anthropological.
Antiq.	Antiquarian, Antiquaries.
Anz.	Anzeiger.
Arch.	Archives, Archivos.
Argent.	Argentina.
Ark.	Arkiv.
Arsb.	Arsbok.
Art.	Article.
Asiat.	Asiatic.
Asoc.	Asociación.
Assoc.	Association.
Austr.	Australia.
Austral.	Australasian.
Av.	Avancement.
Bayer.	Bayerisch.
B.C.	British Columbia.
Beitr.	Beitrag, Beiträge.
Belg.	Belgique.
Ber.	Bericht.
Bibl.	Bibliographie.
Bol.	Boletin.
Boll.	Bollettino.
Bot.	Botanik, botanisch, Botany.
Brit.	British.
Brux.	Bruxelles.
Bull.	Bulletin.
Bur.	Bureau.
Centralbl.	Centralblatt.
Ceskoslov.	Ceskoslovenske.
Chem.	Chemical.
Cienc.	Ciencias.
Cient.	Científica.
Coll.	Colliery.
Collect.	Collection.
Com.	Comitato, Comité.
Comm.	Commission.
Comunic.	Comunicações.
Comp.	Comparative.
Conch.	Conchyliologie.
Congr.	Congrès, Congress.
Conserv.	Conservation.
C. R.	Compte-Rendu.
Crist.	Cristallografia.
Danm.	Danmarks.
Delfstoff.	Delfstoffen.
Denkschr.	Denkschriften.
Dep.	Department.
E.	East.
E. & W.	England & Wales.
Earthq.	Earthquake.
Econ.	Economic.
Edinb.	Edinburgh.
Elsass-Lothr.	Elsass-Lothringen.
Eng.	Engineers, Engineering.
Erdk.	Erdkunde.
Erforsch.	Erforschung.
Ergänzungsh.	Ergänzungsheft.
Ergebn.	Ergebniss.
Erläut.	Erläuterung.
Exped.	Expedition.
Expl.	Explanation.
f.	för, für.
F.-C.	Field-Club.
Földt.	Földtani.
Fören.	Förening.

Förh.	Förhandling.
Fortschr.	Fortschritte.
Franç.	Français.
Fribourg.	Fribourgeoise.
Ged.	Gedeelte.
Geogn.	Geognostisch.
Geogr.	Geografia, Geographical, Geography, geographisch.
Géogr.	Géographie.
Geol.	Geologicæ, Geological, Geologickeho, geológico, geologisch, geologisk, Geologists', Geology.
Géol.	Géologie, géologique.
Geophys.	Geophysik.
Geotechn.	Geotechnisch.
Gesellsch.	Gesellschaft.
Glac.	Glacialogico.
Gletscherk.	Gletscherkunde.
Govt.	Government.
Gr. Br.	Great Britain.
Guard.	Guardian.
Handb.	Handbuch.
Handl.	Handlingar.
Helv.	Helvetiæ.
Hist.	Histoire, History.
Hütt.	Hüttenmännisch.
Hüttenw.	Hüttenwesen.
Idrogr.	Idrografico.
Imp.	Imperial, Impériale.
Ind.	Industrial, Industries.
Ing.	Ingenieros.
Inst.	Institute, Institution, Instituto, Institutului.
Intern.	International.
Ist.	Istituto.
Ital.	Italia, italiano, italico.
Jaarb.	Jaarboek.
Jaarversl.	Jaarverslag.
Jahrb.	Jahrbuch.
Jahresb.	Jahresbericht.
Jahresh.	Jahresheft.
Journ.	Journal.
k.	kaiserlich, königlich, kongelig.
Komm.	Kommission.
Közl.	Közlöny.
Krist.	Kristallographie.
Lab.	Laboratoire.
Landesanst.	Landesanstalt.
Leop.-Car.	Leopoldinisch-Carolinisch.
Linn.	Linnean, Linnéenne.
Lit.	Literary.
Lomb.	Lombardo.
Mag.	Magazine.
Magistr.	Magistrato.

Malac.	Malacological, Malacologique.
Manch.	Manchester.
Matér.	Matériaux.
M.E.	Mining Engineers.
M. & M.	Mining & Metallurgy.
Mech.	Mechanical.
Méd.	Médicale.
Meddel.	Meddelelser.
Mededeel.	Mededeeling.
Mem.	Memoirs, Memorias.
Mém.	Mémoires.
Micr.	Microscopical.
Mijnw.	Mijnwezen.
Min.	Mineral, Mineralogi, Mineralogie, Mineralogical, mineralogico, minéralogique, mineralogisch, Mineralogy.
Mindeskr.	Mindeskrift.
Misc.	Miscellaneous.
Mitt.	Mitteilung.
Monatsb.	Monatsbericht.
Monogr.	Monograph, Monographia, Monographie.
Mus.	Musée, Museo, Museu, Museum, Muséum.
N.	North.
Nac.	Nacional.
Nat.	National, Natural, naturelle, naturali, Naturalist.
Naturf.	Naturforscher, naturforschend.
Naturh.	Naturhistorisch.
Naturk.	Naturkunde.
Naturw.	Naturwissenschaft.
Ned. O.-Ind.	Nederlandsch Oost-Indië.
N.J.	New Jersey.
Norm.	Normandie.
Notizbl.	Notizblatt.
Nouv.	Nouvelle.
N.S.	Nova Scotia.
N.S.W.	New South Wales.
N.Y.	New York.
N.Z.	New Zealand.
Obs.	Observatory.
Occ.	Occasional.
ökonom.	ökonomisch.
Op.	Operations.
Overs.	Oversigt.
Palæontogr.	Palæontographia, Palæontographical.
Palæont.	Palæontologia, Palæontological.
Paléont.	Paléontologie.
Paléozool.	Paléozoologie.
Peterm.	Petermanns.
Petr.	Petrographie, petrographisch.
Phil.	Philosophical.
Philad.	Philadelphia.
Phys.	Physical, Physique.

Physik.	Physikalisch.
Prakt.	Praktisch.
Prehist.	Prehistoric.
Preuss.	Preussisch.
Proc.	Proceedings.
Proc.-verb.	Procès-verbaux, Processi-verbali.
Prof.	Professional.
Progr.	Progress, Progreso.
Pubbl.	Pubblicazione.
Publ.	Publication.
Quart.	Quarterly.
R.	Real, Reale.
Rec.	Records.
Reg.	Regional.
Reichsanst.	Reichsanstalt.
Rendic.	Rendiconti.
Rep.	Report.
Res.	Resources.
Rev.	Review, Revista, Revue.
Rheinl.	Rheinland.
Rijksop.	Rijksopsporing.
Riv.	Rivista.
Roy.	Royal.
Rundsch.	Rundschau.
S.	South.
Salinenw.	Salinenwesen.
Samml.	Sammlung.
Schr.	Schrift.
Schwed.	Schwedisch.
Schweiz.	Schweizerisch.
Sci.	Science, Scientific, scientifique, Scienze.
Scot.	Scottish.
Secr.	Secretary.
Sect.	Section.
Seism.	Seismological.
Selsk.	Selskab.
Senckenberg.	Senckenbergisch.
Serv.	Service, Serviço.
Siebenbürg.	Siebenbürgisch.
Sitzb.	Sitzungsbericht.
Skrift.	Skrifter.
Smithson.	Smithsonian,
Soc.	Sociedad, Società, Société, Society.
Staatsanst.	Staatsanstalt.
Státn.	Státniho.
Stockh.	Stockholm.
Summ.	Summary.
Suppl.	Supplement.
Surv.	Survey.
Sver.	Sverige.
Techn.	Technologists.
Tidsskr.	Tidsskrift.
Tosc.	Toscana.
Trans.	Transactions.
u.	und.
Uff.	Ufficio.
Undersög.	Undersögelse.
Undersök.	Undersökelse.
Undersökn.	Undersökning.
Ung.	Ungarisch.
Univ.	Università, Université, University.
U.S.	United States.
Ust.	Ustavu.
Vaud.	Vaudois.
Ver.	Verein.
Verh.	Verhandlung.
Vet.-Akad.	Vetenskaps-Akademie.
Vidensk.	Videnskaberne.
W.	Western.
Wissensch.	Wissenschaft, wissenschaftlich.
Zeitschr.	Zeitschrift.
Zentralbl.	Zentralblatt
Zool.	Zoological, Zoology.

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The *Lists of Geological Literature added to the Geological Society's Library* during the years 1920–1924 inclusive were published in the form of a list of papers and separate books arranged alphabetically under the names of the authors. The index to the subject-matter contained in the papers (which had formed part of all the annual lists previously published) could not, for financial and other reasons, be compiled and printed during these years. Provision was made later, however, for repairing this omission and a subject-index to the literature for 1923 and 1924 was issued in 1933. The index which follows is for the years 1920, 1921, and 1922 and its publication completes the *Lists of Geological Literature added to the Geological Society's Library* during the years 1894–1934 inclusive. More exhaustive indexes to geological literature, published elsewhere, have now superseded the Geological Society's annual lists, which have, therefore, been discontinued.

The attention of users of the index is directed to the following explanatory notes :—

I. This index follows the lines of those published in the *Lists of Geological Literature* for the years subsequent to 1924. It differs from those published previously in the following respects.

1. TOPOGRAPHICAL ENTRIES. Topographical entries have, in the main, been confined to such geographical divisions as counties, departments, states, etc. Obscure place-names mentioned in papers have not been included, but the papers have been indexed under the appropriate larger geographical unit.
2. PALÆONTOLOGICAL ENTRIES. Names of fossils indexed are those which appear in the titles of papers or constitute an important part of the paper indexed. The earlier practice of indexing the generic names of all species figured in the papers has been discontinued, as such genera and species are indexed in the *Zoological Record* published annually by the Zoological Society of London.
3. MAPS. The maps indexed (under the heading "MAPS") are those which appear in papers or books included in the Author-lists for 1920, 1921, and 1922. Separately published maps (for example, sheets of Geological Survey maps) do not appear in this index ; a list of such maps received during each of those years will be found at the end of the appropriate Author-list.
4. OBITUARIES. Names of geologists of whom obituary notices have been published will be found indexed in the Author-list. They are not repeated in the Subject-index.

II. The figures **0**, **1**, and **2** have been used throughout the index to denote the years 1920, 1921, and 1922 respectively. Authors' names following the figure **0** refer to papers by those authors included in the *List of Geological Literature for 1920* ; those following the figure **1** refer to papers in the list for 1921 ; and those following the figure **2** refer to papers in the list for 1922.

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Amphibole.—**1**, Salmojraghi, F., 5; Shannon, E. V., 7; **2**, Brouwer, H. A.; Murgoci, G., 11, 12; Shannon, E. V., 9.

—— -rocks, Styria.—**2**, Heritsch, F., 7.

Amphibolite, Argentina.—**2**, Ugolini, R.

——, Austria.—**0**, Hammer, W., 7; **1**, Kittl, E.

——, Finland.—**1**, Frosterus, B., 3; Laitakari, A.

——, France.—**0**, Oulianov, N., 3; **1**, Brière, Y.

——, Germany.—**1**, Tietze, O., 8; **2**, Kalb, G., 5.

——, Lombardy.—**1**, Repossi, E., 11,

——, New South Wales.—**2**, Andrews, E. C.

——, Norway.—**1**, Bugge, C.; Rekstad, J.; **2**, Foslie, S., 3.

——, Romania.—**2**, Vendl, A.

——, S. Australia.—**1**, Tilley, C. E.

——, Sweden.—**2**, Lindroth, G. T.; Sundius, N., 2.

——, Valais.—**1**, Barthomès, F.

——. *See also* Eclogite-amphibolite & Gabbro-amphibolite.

Amphicœlias.—**0**, Osborn, H. F., 9; **1**, Osborn, H. F., 6.

Amphilepidina.—**2**, Douvillé, H., 9.

Amphitrochilia.—**2**, Cossmann, A. E. M.

Amsteg (Uri).—**1**, Lugeon, M., 6.

Amstelian, Campine.—**2**, Halet, F., 3.

Amussiopecten.—**0**, Teppner, W. v.

Amygdaloids.—**0**, Reis, O. M.

——, Nova Scotia.—**2**, Walker, T. L., 2.

——, diabase-, Westphalia.—**1**, Græfenkæmper, W.

Amygdules, agate.—**0**, Reis, O. M.

Amynodon.—**1**, Troxell, E. L., 3.

Amynodontidæ.—**1**, Troxell, E. L., 3.

Analcite.—**2**, Billows, E.; Macgregor, A. G.; Stoklossa, G.

Analyses. *See* Coal, Rock analyses, &c.

Ananchothuria.—**1**, Fossa-Mancini, E.

Anatase.—**1**, Ehringhaus, A.; **2**, Johnsen, A., 14; Parker, R. L.

Anatolia.—**1**, Karajian, H. A.; **2**, Vadász, E.

Ancona (Marche).—**0**, Segré, C.; **1**, Oddone, E., 3.

Ancylus-clay, Europe (N.).—**0**, Odén, S., 3.

Andalgalá R. (Argentina).—**0**, Kantor, M., 2.

Andalusia. *See* Betic Cordillera.

Andalusite.—**0**, Anten, J., 3; Klemm, G., 6; **2**, Cornelius, H. P., 5.

Andernach (Rheinland).—**1**, Jungbluth, F. A.; **2**, Altfeld, E.

Andes.—**0**, Berry, E. W., 4 ; **1**, Berry, E. W., 5 ; Miller, B. le R. ; **2**, Gerth, H., 2 ; Schuchert, C., 2.
—— (Bolivian-Peruvian).—**0**, Douglas, J. A. ; Miller, B. L. ; **2**, Heald, K. C. ; Mather, K. F.
——. *See also* Cordilleras.
Andesite, Angola.—**0**, Holmes, A., 4.
——, Borneo (Dutch).—**1**, Krol, L. H.
——, Hungary.—**1**, Mauritz, B.
——, Jersey.—**1**, Plymen, G. H.
——, Krakow.—**1**, Małkowski, S. ; Morozewicz, I., 5.
——, Mexico.—**2**, Flores, T. ; Winchell, H. V.
——, Morocco (Sp.).—**1**, Marín, A., 2.
——, Portuguese E. Africa.—**0**, Holmes, A., 9.
——, S. Rhodesia.—**2**, Macgregor, A. M.
——, Venetia.—**1**, Maddalena, L., 3.
——, inclusions in leucitite, Java.—**2**, Brouwer, H. A., 8.
——, pyroxene-, Hungary.—**1**, Pálfy, M. v., 3.
——, ——-, Sumatra.—**2**, Brouwer, H. A., 5.
Andesitic ash, Romania.—**0**, Simionescu, I.
Andlau (Alsace).—**0**, Kissling, A.
Andorite, Nevada.—**2**, Shannon, E. V., 13.
Andoversford (Glos).—**1**, Richardson, L., 4.
Andradite.—**2**, Lewis, J. V., 2.
Andreafski (Alaska).—**0**, Harrington, G. L., 1, 2.
Angaraland.—**2**, Leuchs, K.
Angers (Maine-et-Loire).—**0**, Bigot, A. ; **1**, Couffon, O. ; **2**, Ferronnière, G.
Angers schists, Manche.—**0**, Fraipont, C., 2.
Anglesey.—**0**, Greenly, E. ; **2**, Greenly, E., 2.
Anglesite.—**0**, Buttgenbach, H., 2 ; Russell, A., 2 ; Shannon, E. V., 12 ; **2**, Kraus, E. H., 3 ; Shannon, E. V., 5.
Anglo-Egyptian Sudan. *See* Sudan.
Angola.—**0**, Holmes, A., 4 ; Robert, M. ; Souza, P. de, 2 ; **1**, Kanthack, F. E. ; Pereira de Sousa, F. L., 2 ; **2**, Gregory, J. W., 2 ; Range, P.
Angra Pequeña (S.W. Afr.).—**0**, Rand, R. F.
Anguillavus.—**2**, Martin, H. T.
Anhalt (Germany).—**0**, Becker, A. ; **1**, Menzel, H., 4.
Anhwei (China).—**0**, Chatley, H.
Anhydrite.—**1**, Newland, D. H. ; Richardson, W. A., 5 ; Stone, R. W. ; **2**, Grahmann, W. ; Newland, D. H., 2, 3 ; Veit, K. ; Wilder, F. A.
Aniene valley (Lazio).—**2**, Wepfer, E., 1, 2.
Animalia, bibliography & nomenclature.—**2**, Sherborn, C. D., 2.
Anisian, Trentino.—**0**, Arthaber, G. v.
Anisodelphis.—**1**, Rovereto, G.
Anjou (France).—**0**, Stouvenot, A. ; **2**, Nicou, P.
Ankerite.—**0**, Berg, G., 2 ; Lindgren, W., 3 ; **2**, Mélon, J.
Ankogel (Carinthia).—**0**, Angerer, H., 1, 2.
Annaheim (Saskatch.).—**2**, Johnston, R. A. A.
Annam (Fr. Indo-China).—**2**, Colani, M., 2 ; Jacob, C., 1, 2, 4, 5 ; Mansuy, H., 3, 8, 9.
Anne Arundel (Md.).—**0**, Little, H. P.
Annecy, L. (Haute-Savoie). — **0**, Moret, L.
Annelida. *See* Vermes.
Anomia.—**1**, Douvillé, H., 22.
Anomocare. — **2**, Raymond, P. E., 4.
Anomodontia.—**2**, Broom, R.
Anorthite.—**1**, Andersen, O. ; Kratzert, J. ; Parsons, A. L. ; **2**, Bœke, H. E., 5 ; Zambonini, F., 2.
Anorthoclase.—**2**, Sokol, R.
Anorthosite, New York.—**2**, Kemp, J. F.
—— -gabbro, New York.—**0**, Miller, W. J., 5 ; **1**, Miller, W. J.
Anosteira.—**2**, Harrassowitz, H. L. F., 4.
An-shan (Manchuria).—**2**, Murakami, H.
Antarctica.—**0**, Bodman, G. ; Mawson, D. ; Skeats, E. W., 6 ; **1**, Drygalski, E. v. ; **2**, Ferguson, D. *See also* Adélie Land, Subantarctica, *&c.*
Anthophyllite.—**0**, Shannon, E. V., 12 ; **1**, Shannon, E. V., 7 ; **2**, Shannon, E. V., 5, 9.
Anthozoa.—**0**, Robinson, W. I. ; Rothpletz, A. ; Vaughan, T. W. ; Zeil, G., 7 ; **1**, Haas, F. ; Raymond, P. E., 2 ; **2**, Grabau, A. W., 3 ; Scalia, S. ; Wulff, R.
——, Cambrian. — **2**, Gordon, W. T.
——, Carboniferous.—**0**, Butler, B. S. ; Butts, C., 1, 2 ; Douglas, J. A. ; Frech, F., 2 ; Hinds, H., 2 ; Holtedahl, O., 3, 4 ; Milton, J. H. ; Reed, F. R. C., 2 ; Ulrich, E. O. ; **1**, Benson, W. N., 2 ; Chapman, F., 2 ; Salée, A., 1, 2 ; Smith, S. ; Smyth, L. B. ; Swinnerton, H. H. ; **2**, Benson, W. N., 2 ; Greene, G. K.; Mansuy, H., 2, 11 ; Morningstar, H. ; Smyth, L. B.
——, Cretaceous.—**0**, Clark, W. B., 2 ; Nielsen, K. B., 1, 2 ; Stanton, T. W., 2 ; **1**, Dehorne, Y. ; Fossa-Mancini, E., 5 ; Rosenkrantz, A., 2 ; **2**, Cottreau, J. ; Dietrich, W. O., 4 ; Heritsch, F., 4 ; Koch, F. ; Oppenheim, P., 5, 6.
——, Culm.—**1**, Weigelt, J.

Anthozoa, Devonian.—**0**, Butts, C. ; Chapman, F., 6 ; Charlesworth, J. K. ; Dunbar, C. O. ; Leidhold, C., 2 ; **1**, Ball, L. C. ; Dunbar, C. O. ; Etheridge, R. ; Heritsch, F., 1, 2 ; Hueffner, E., 2 ; Lieber, H. ; Vinassa de Regny, P., 2 ; **2**, Dœring, A., 2 ; Fourmarier, P., 6 ; Greene, G. K. ; Mansuy, H., 2, 3, 10 ; Markov, K. ; Reed, F. R. C., 2 ; Richter, R., 2.

——, Eocene.—**0**, Oppenheim, P. ; **1**, Oppenheim, P., 2 ; **2**, Bosworth, T. O. ; Fabiani, R., 8 ; Oppenheim, P., 2, 8 ; Vincent, E., 3 ; Woods, H.

——, Jurassic.—**0**, Muecke, K. v. ; **1**, Cayeux, L., 3, 4 ; Douvillé, H., 3 ; **2**, Dietrich, W. O., 4 ; Gregory, J. W. ; Heritsch, F., 4.

——, Lias.—**1**, Tilmann, N., 2.

——, Mesozoic.—**2**, Heritsch, F., 5.

——, Miocene.—**1**, Chapman, F., 3 ; **2**, Daus, H. ; Dietrich, W. O., 2.

——, Neogene.—**1**, Felix, J., 1–3.

——, Oligocene.—**0**, Abendanon, E. C. ; **1**, Vincent, E. ; **2**, Fabiani, R., 8 ; Kranz, W. ; Oppenheim, P., 2.

——, Ordovician.—**0**, Bassler, R. S. ; Butts, C. ; Chapman, F., 4 ; Holtedahl, O., 12 ; Miller, A. M. ; **2**, Holtedahl, O. ; Kiær, J., 2 ; Wilson, A. E.

——, Palæozoic.—**0**, Heritsch, F., 2 ; Holtedahl, O., 6 ; Mansuy, H., 3, 5 ; **2**, Penecke, K. A.

——, Permian.—**0**, Haack, W. ; **1**, Gerth, H., 2 ; **2**, Gerth, H., 4.

——, Permo-Carboniferous.—**2**, Mansuy, H., 5.

——, Pleistocene.—**0**, Oppenheim, P., 7 ; Vaughan, T. W., 5.

——, Pliocene.—**1**, Bell, A. ; Brest, E., 2 ; **2**, Dickerson, R. E., 3 ; Oppenheim, P., 3.

——, Quaternary.—**1**, Felix, J., 1, 2 ; Vaughan, T. W. ; **2**, Oppenheim, P., 5.

——, Silurian.—**0**, Butler, B. S. ; Butts, C. ; Chapman, F., 4–6 ; Charlesworth, J. K. ; Reed, F. R. C. ; **1**, Chapman, F., 4 ; **2**, Athanasiu, S. C., 10 ; Greene, G. K. ; Kiær, J., 2.

——, Tertiary.—**0**, Vaughan, T. W., 5 ; **1**, Vaughan, T. W. ;

——, Trias.—**1**, Diener, C., 5 ; Jaworski, E. ; Vinassa de Regny, P.

Anthracite.—**1**, Imperial Mineral Resources Bureau, 15 ; **2**, Anthoine, R.

——, Algeria.—**2**, Dalloni, M., 4.

——, Pennsylvania.—**2**, Kemp, J. F., 5.

——, Wales (S.).—**0**, Great Britain, 5.

——, origin.—**1**, Galloway, W. ; **2**, Galloway, W. ; Roberts, J., 2.

Anthracolithic, French Indo-China–Yunnan.—**0**, Mansuy, H., 8 ; **2**, Mansuy, H., 8.

Anthracotheriidæ. — **1**, Troxell, E. L.

Anthracotherium.—**0**, Blayac, J. ; Repelin, J.

Anthropoidea.—**1**, Sera, G. L. ; **2**, Remane, A.

——, Pliocene.—**1**, Stromer, E. ; **2**, Osborn, H. F., 6, 8 ; Pycraft, W. P. ; Schlosser, M., 2 ; Woodward, A. S., 4.

——, Quaternary.—**2**, Athanasiu, S. C., 4, 5.

Anticlines.—**0**, Udden, J. A.

——, United States.—**0**, Bowen, C. F., 2 ; Clark, F. R., 2 ; Collier, A. J., 3, 6, 7 ; Fath, A. E., 2 ; Hares, C. J. ; Hewett, D. F., 4 ; Stebinger, E. ; **2**, Fath, A. E.

——, Weald.—**0**, Lamplugh, G. W., 2.

——, accumulation of petroleum &.—**2**, Craig, E. H. C., 3 ; Gregory, J. W., 3 ; Hautpick, E. de ; Newbery, —.

Anticosti I. (Queb.).—**0**, Twenhofel, W. H., 2 ; **1** & **2**, Twenhofel, W. H.

Antigua (W. Indies).—**0**, Anon., 41.

Antilles. *See* West Indies.

Antilope.—**1**, Stefano, G. de, 4.

Antimony.—**1**, Brown, J. C., 2; Imperial Mineral Resources Bureau, 12.

——, Alaska.—**0**, Capps, S. R., 3, 4.

——, Armorican Massif.—**1**, Kerforne, F.

——, Burma.—**1**, Heron, A. M. ; Jones, H. C., 3.

——, China.—**2**, Hubbard, G. D., 2.

——, Great Britain.—**0**, Dewey, H., 2.

——, Serbia.—**2**, Pietzsch, O.

——, Slovakia.—**2**, Krusch, P., 2 ; Lachmann, R.

——, Styria.—**1**, Chlebus, P.

——, United States.—**0**, Jones, E. L., *fil* ; Knopf, A., 3 ; **1**, Behre, C. H., *fil.*

——, crystal-structure.—**0**, James, R. W. ; **1**, Ogg, A.

——, world's production.—**0**, United States, 4–6, 8 ; **1**, United States, 8 ; **2**, United States, 10.

——. *See also* Stibnite.

Antimony minerals.—**0**, Emmons, W. H.

Antofagasta (Chile).—**2**, Junghann, —.

Antrim.—**0**, Lankester, E. R. ; **1**, Cole, G. A. J., 3 ; Fletcher, L. ; **2**, Cole, G. A. J., 6.

Antrodemus.—**0**, Gilmore, C. W., 6.

Antwerp (Belgium).—**2**, Halet, F., 2 ; Hasse, G. ; Van Straelen, V., 2.

Anvik (Alaska).—**0**, Harrington, G. L., 1, 2.

Anzio (Lazio).—**0**, Meli, R., 7.
Aosta valley (Piedmont).—**0**, Sacco, F., 32 ; **1**, Zuffardi, P., 3.
Aparima R. (N.Z.).—**0**, New Zealand, 6.
Apatite.—**1**, Bianchi, A., 2 ; Ehringhaus, A. ; Grosspietsch, O. ; **2**, Freudenberg, W., 2 ; Gleditsch, E. ; Hawkins, A. C., 2.
——, Bihar & Orissa.—**1**, Murray, E. F. O.
——, Canada.—**1**, Spence, H. S.
——, Norway.—**2**, Bugge, C.
——, Rheinland.—**1**, Brauns, R., 3.
——, Sweden.—**2**, Geijer, P.
Apatopygus.—**0**, Hawkins, H. L., 2.
Apennines (Italy).—**0**, Crema, C. ; Lencewicz, S., 2 ; **1**, Chelussi, I., 7 ; Crema, C., 8 ; Pantanelli, D. ; Principi, P. ; Segrè, C. ; **2**, Fossa-Mancini, E., 2 ; Principi, P., 2.
—— (Ligurian).—**1**, Repossi, E., 12, 13 ; **2**, Roccati, A., 2.
Aphrophyllum.—**1**, Smith, S.
Aphthitalite.—**0**, Foshag, W. F., 3 ; **1**, Washington, H. S., 5.
Aplite, Baden.—**2**, Sœllner, J., 4.
——, Czechoslovakia.—**0**, Beck, R., 2 ; **2**, Kretschmer, F.
——, Devon.—**0**, Worth, R. H.
——, Dobrogea.—**2**, Cantuniari, S., 3.
——, New York.—**0**, Miller, W. J., 3.
——, S. Australia.—**0**, Tilley, C. E., 1, 2 ; **1**, Browne, W. R.
——, S.-W. Africa.—**2**, Schneiderhœhn, H.
——. *See also* Norite-aplite & Plagiaplite.
Aplitic granite. *See* Granite.
Apophyllite.—**0**, Buttgenbach, H., 2 ; **1**, Ehringhaus, A. ; Wenzel, A. ; **2**, Billows, E. ; Stoklossa, G.
Apophyse, Saxony.—**0**, Pietzsch, K.
Appalachian Mts. (N. America).—**0**, Barrell, J. ; Bryan, P. W. ; **1**, Tilmann, N. ; **2**, Ashley, G. H.
Appenzell (Switzerland).—**1**, Mylius, H.
Appleby (Westmorland).—**1**, Bramall, V.
Applecross (Ross & Cromarty).—**0**, Lee, G. W.
Apt (Vaucluse).—**1**, Dollfus, G. F., 4.
Apthitalite.—*See* Aphthitalite.
Aptian, Majorca.—**1**, Fallot, P., 2.
——, Paris Basin.—**1**, Kilian, W., 2.
——, Venezuela.—**2**, Collet, L. W.
Apus.—**2**, Ruedemann, R., 4.
Aquamarine.—**0**, Middlemiss, C. S., 3 ; **2**, Siedel, P.
Aquila (Abruzzi).—**1**, Chelussi, I., 2, 4.
Aquitaine (France).—**0**, Dollfus, G. F. ; Douvillé, H., 5, 8 ; **1**, Cossmann, M. ; Douvillé, H., 16, 17 ; Repelin, J., 2.
Aquitanian, France.—**0**, Blayac, J., 2 ; Dollfus, G. F. ; **1**, Termier, P., 5 ; **2**, Denizot, G.
Aquitanian, Morocco.—**0**, Savornin, J., 2 ; **1**, Savornin, J., 4.
Arabia.—**1**, Fuchs, E. ; Great Britain ; Kober, L. ; **2**, Dienemann, W.
——. *See also* Yemen.
Arabian Desert (Egypt).—**1**, Artini, E., 6 ; Schuermann, E., 2 ; **2**, Schuermann, H. M. E., 2.
Arache (Haute-Savoie).—**0**, Moret, L., 2 ; **2**, Moret, L.
Arachnida.—**1**, Pruvost, P., 6 ; Sellnick, M. ; **2**, Petrunkevitch, A.
Aræocyon.—**2**, Thorpe, M. R., 1, 4.
Aragonite.—**0**, Buttgenbach, H., 2 ; Wells, R. C. ; **2**, Beckenkamp, J., 2 ; Johnsen, A., 7 ; Veit, K. *See also* Calcium carbonate.
Aral Sea area (Turkestan).—**2**, Lukovitch, M. T.
Aranyos valley (Transylvania).—**0**, Lóczy, L. v., *fil.*
Araucarioxylon.—**0**, Colani, M., 2 ; Kræusel, R. ; **1**, Jeffrey, E. C., 2.
Arauco (Chile).—**2**, Berry, E. W., 4.
Aravalli system, Bombay Presidency.—**1**, Middlemiss, C. S.
Arcachon (Gironde).—**0**, Peyrot, A.
Archæan, Congo Belge.—**1**, Dorlodot, L. de, 5 ; **2**, Dorlodot, L. de, 3.
——, Fennoscandia.—**0**, Holmquist, P. J. ; **1**, Geijer, P., 4.
——, Greenland.—**1** & **2**, Koch, L.
——, India.—**0**, Fermor, L. L. ; Middlemiss, C. S.
——, Malvern Hills.—**1**, Bennett, A.
——, Sweden.—**1**, Holmquist, P. J., 5.
Archæoceti.—**2**, Stromer, E., 4.
Archæocythinæ.—**0**, Rothpletz, A. ; **2**, Gordon, W. T.
Archæodelphis.—**1**, Allen, G. M.
Archæology.—**1**, Childe, A.
——, Europe.—**2**, Macalister, R. A. S.
Archæoniscus.—**1**, Haack, W., 2.
Archæotherium.—**2**, Sinclair, W. J., 3, 4.
Archimylacris.—**1**, Bolton, H., 2.
Archosauria.—**0**, Wiman, C.
Arcs. *See* Island arcs & Variscan arcs.
Arctic flora, Cambridgeshire. — **1**, Chandler, M. E. J.
Arctica.—**0**, Holmes, A., 10 ; Holtedahl, O., 10, 15.
—— (European).—**2**, Tams, E., 3.
——. *See also* Ellesmere Land & Franz Josef Land.
Arctotherium.—**0**, Matthew, W. D., 3.
Ardèche (France).—**1**, Anderson, T. ; **2**, Depape, G. ; Lissajous, M. ; Riche, A.
Ardèche R. (France).—**1**, Lugeon, M., 7.
Ardennes.—**0**, Hummel, K., 2 ; Werveke, L. v., 11.
—— (Belgium).—**1**, Asselberghs, E., 1, 8 ; **2**, Moressée, G., 3 ; Quaas, A. ; Wichmann, A.

Ardennes (France).—**1**, Pruvost, P., 5.
Ardennite.—**2**, Zambonini, F.
Ardlethan (N.S.W.).—**0**, Harper, L. F.
Ardrossan (S. Austr.).—**0**, Howchin, W., 7.
Arethusina.—**2**, Perner, J.
Argelès (Hautes-Pyrénées).—**1**, Lapparent, J. de.
Argentario, Mte. (Tuscany).—**2**, Caterini, F.
Argentat (Corrèze).—**2**, Mouret, G., 2.
Argentera (Piedmont).—**1**, Sacco, F., 2.
Argentière glacier (Haute-Savoie).—**2**, Arsonval, — d'.
Argentina.—**0**, Rovereto, G.; **1**, Gerth, H., 3; Kantor, M.; Torcelli, A. J.; **2**, Gerth, H., 2, 3.
——, bibliography.—**0**, **1** & **2**, Sparn, E.
——, mineral resources.—**0**, Herold, S. C.; **1**, Jochamowitz, A.; **2**, Herold, S. C.
——, prehistory.—**1**, Ameghino, F., 5, 9–11; **2**, Ameghino, F.
——, stratigraphy.—**1**, Roth, S.; **2**, Behrendsen, O.; Berry, E. W.; Doello-Jurado, M.; Fritzsche, C. H., 2; Keidel, J.; Stehn, E.
——. *See also* Buenos Aires, Cordilleras, Córdoba, *&c.*
Argentite.—**1**, Delgrosso, M.; **2**, Beutell, A., 4.
Arghana Maden (Kurdistan).—**2**, Pilz, R., 2.
Argillites, till.—**0**, Lane, A. C., 3.
——, Uganda.—**1**, Simmons, W. C., 2.
——, banded.—**2**, Sayles, R. W., 3.
Argyll.—**1**, Bailey, E. B.; **2**, Bailey, E. B.; Jehu, T. J.; Wright, W. B., 2. *See also* Mull.
Ariège (France).—**1**, Bertrand, L., 6; **2**, Dubar, G.
Arieticeras.—**2**, Haas, O.
Arietites.—**2**, Haas, O.
Aristotelian theory, earthquakes.—**1**, Montessus de Ballore, F. de, 2.
Arizona (U.S.A.).—**0**, Bryan, K., 2; Foshag, W. F.; Gregory, H. E., 2; **1**, Meunier, S., 2; **2**, Bryan, K., 2; Reber, L. E., *fil*; Ross, C. P.
—— (——), ore-deposits.—**0**, Jones, E. L., *fil*, 6; Ransome, F. L.; Rice, M.; Schrader, F. C.; United States, 4–6, 8; **1**, Schwartz, G. M.; **2**, Bastin, E. S., 3; Hess, F. L.; Ransome, F. L., 2; Simmersbach, B., 8; Stahl, A., 2; United States, 8, 10.
—— (——), stratigraphy.—**0**, Shimer, H. W., 3; **1**, Longwell, C. R.; **2**, Reeside, J. B., *fil.*
—— (——), water.—**0**, Bryan, K.; Gregory, H. E.; Grover, N. C., 2–4; Schwennesen, A. T., 1, 3; **2**, Grover, N. C.
Arkansas (U.S.A.).—**0**, Miser, H. D., 1–4; Purdue, A. H.; United States, 5, 6, 8; **1**, Miser, H. D.; **2**, Anon., 32; Bryan, K.; Dake, C. L.
Arkose, Vosges.—**1**, Buecking, H.
——, the term.—**1**, Walther, K.
Arles. *See* Crau d'Arles.
Armagnac (Gers).—**0**, Depéret, C.; Dollfus, G. F., 2.
Armangite.—**0**, Aminov, G., 3; **1**, Wherry, E. T., 7.
Armenia.—**0**, Agababian, G. J.; Bonnet, P., 1, 2; **1**, Great Britain; Karajian, H. A.
Armidale (N.S.W.).—**0**, Morrison, M., 5.
Armorican Massif (France).—**0**, Kerforne, F., 1, 10; Picquenard, C. A.; **1**, Kerforne, F., 1, 2, 6–8; Picquenard, C., 2; **2**, Ferronnière, G., 3; Kerforne, F. J., 5, 6, 8.
Armstrongia.—**1**, Clarke, J. M., 4.
Arnioceras.—**2**, Trueman, A. E., 2.
Arniotites.—**2**, Claus, H.
Arno valley (Tuscany).—**0**, Fossa-Mancini, E.
Arpille (Valais).—**0**, Collet, L. W., 4; Oulianov, N., 2; **1** & **2**, Oulianov, N.
Arran (Scotland).—**0**, Gregory, J. W., 3.
Arsenic.—**0**, United States, 9; **1**, Brown, J. C., 2; Imperial Mineral Resources Bureau; **2**, Dunstan, B., 2; United States, 10.
——, Cornwall-Devon.—**0**, Dewey, H., 2.
——, New South Wales.—**0**, Harper, L. F., 2.
——, Silesia.—**2**, Berg, G., 9; Beutell, A., 10.
Arsenic minerals.—**0**, Emmons, W. H. *See also* Nickel-arsenic mineral.
Arsenite.—**0**, Aminov, G., 3.
Arsenolite.—**2**, Zenzén, N.
Arsenopyrite.—**1**, Smythe, D. D., 2; Zimányi, K., 2.
——, Bohemia.—**0**, Želízko, J. V., 4.
——, auriferous, Montagne Noire.—**1**, Rothey, P. L.
Art, prehistoric.—**0**, Rutot, A.; **1**, Burkitt, M. C.; Latorre, A. C.; Shetelig, H., 2; **2**, Osborn, H. F., 2; Paulcke, —.; Petersen, T. *See also* Rock-sculpture.
Artesian water. *See* Water.
—— wells. *See* Wells.
Arthog (Merioneth).—**0**, Cox, A. H., 4; **1**, Cox, A. H.
Arthroacantha.—**2**, Schmidt, W. E.
Arthrodira.—**2**, Woodward, A. S., 2.
Arthropitys.—**2**, Schœnfeld, G., 2.
Arthropoda.—**0**, Raymond, P. E., 3; **1**, Raymond, P. E.
Arthur's Pass (N.Z.).—**0**, Farr, C. C.
Arthur's Seat (Edinburgh).—**1**, Peach B. N.

Artiodactyla.—**0**, Lull, R. S., 2, 4 ; Troxell, E. L. ; **1**, Repelin, J., 3 ; **2**, Joleaud, L., 2.

Artois (France).—**1**, Dubois, G., 6.

Arun R. area (Himalayas).—**2**, Heron, A. M.

Arundel formation, Maryland.—**2**, Gilmore, C. W., 2.

Arve R. (Geneva).—**0**, Boissier, R.

Arvicola.—**0**, Bate, D. M. A.

Arvicolinæ.—**1**, Dubois, G., 1, 3, 5.

Arvigrat (Switzerland).—**0**, Christ, P.

Asama-Yama vol. (Japan).—**0**, Omori, F.

Asbach (Hesse).—**0**, Klemm, G., 8.

Asbestos.—**1**, Imperial Mineral Resources Bureau, 13 ; Quebec.

——, Graubünden.—**2**, Schmidt, C., 3.

——, Norway.—**0**, Reusch, H., 10 ; **2**, Reusch, H.

——, Quebec.—**2**, Harvie, R.

——, S. Australia.—**1**, Jack, R. L., 1, 2, 5.

——, Tasmania.—**0**, Reid, A. M., 2.

——, Transvaal.—**2**, Hall, A. L., 3.

——, United States.—**0**, United States, 6, 8 ; **1**, United States, 4, 9 ; **2**, United States, 11.

——, W. Australia.—**0**, Blatchford, T., 7 ; **2**, Simpson, E. S. ; Wilson, R. C., 3.

——. *See also* Amianthus.

Ascension I. (S. Atlantic).—**2**, Daly, R. A.

Aschemonia.—**2**, Dettner, F.

Ash. *See* Andesitic ash *&* Volcanic ash.

Ashburton (W. Austr.).—**0**, Talbot, H. W. B., 6.

Ashcroft (B.C.).—**0**, Ferrier, W. F., 2.

Ashford (Middlesex).—**2**, Dewey, H.

Ashley R. (N.Z.).—**2**, New Zealand, 20.

Asia, iron.—**2**, Great Britain, 23, 27.

——, Trias.—**2**, Krumbeck, L., 3.

—— (Central), palæogeography.—**2**, Leuchs, K.

—— (E.), petroleum.—**2**, White, D., 3.

—— (S.E.).—**0**, Deprat, J. ; **2**, Gregory, J. W., 10.

—— (W.), Cretaceous.—**0**, Douvillé, H., 4.

Asia Minor.—**0**, Frech, F., 2, 3 ; Philippson, A. ; **1**, Fliegel, G., 5 ; Franchi, S., 2 ; Penck, W. ;

—— ——, Cretaceous.—**0**, Fliegel, G., 2 ; Oppenheim, P., 5 ; Wolff, W., 3.

—— ——, mineral resources.—**0**, Anon., 33 ; Dœlter, C. ; Kirsopp, J. ; **1**, Hagen, W. ; **2**, Beyschlag, F., 5 ; Mueller, H. ; Schmidt, C., 4 ; Wolff, W.

—— ——, Palæozoic.—**0**, Fliegel, G. ; Leidhold, C., 2 ; **1**, Hueffner, E., 2.

—— ——, Tertiary.—**0**, Arabu, N. ; Oppenheim, P., 6, 8 ; **2**, Daus, H.

—— ——. *See also* Anatolia, Sea of Marmara area, *&c.*

Askold I. (Siberia).—**2**, Goudkoff, P. P., 4.

Aspe R. area (Basses-Pyrénées).—**2**, Viennot, P.

Aspergillum.—**2**, Peyrot, A.

Asphalt.—**0**, Marcusson, J. ; United States, 5, 6, 8 ; **2**, United States, 9, 11, 13.

——, Dalmatia.—**0**, Kerner, F. v., 6 ; **1**, Kerner, F. v., 2.

——, Java.—**1**, Mannhardt, F. G.

——, Pfalz.—**0**, Reis, O. M., 2.

——, Trinidad.—**0**, Anon., 26.

——, United States.—**0**, Crump, M. H., 2 ; Fœrste, A. F. ; Miser, H. D., 4 ; **1**, Jillson, W. R., 16.

——. *See also* Grahamite *&* Rock-asphalt.

Asphaltite, Argentina.—**2**, Windhausen, A. *See also* Pitch.

Asphaltum, New South Wales.—**2**, Morrison, M., 9.

Aspidiscus.—**1**, Fossa-Mancini, E., 5.

Aspidoceras.—**0**, Collot, L.

Assal, L. (Fr. Somaliland).—**2**, Dégoutin, M.

Assam.—**0**, Pinfold, E. S., 3 ; **1**, Stuart, M., 3 ; Vredenburg, E., 3 ; **2**, Spengler, E.

Assilina.—**1**, Regè, R.

Assimilation, volcanic eruption &.—**2**, Fenner, C. N., 2.

Asterism, minerals.—**2**, Kæmmerer, P.

Asteroidea.—**1**, Bell, A.

Asteroxylon.—**0**, Kidston, R. ; **2**, Kidston, R., 2.

Asterozoa.—**2**, Spencer, W. K.

Astraeopora.—**2**, Kranz, W.

Astronomy, geology &.—**2**, Eddington, A. S.

Atacama (Chile).—**1**, Linnemann, C. *See also* Puna de Atacama.

Athabaska, L. area (Saskatch.).—**1**, Alcock, F. J., 5.

Athabaska series, N. Canada.—**0**, Alcock, F. J.

Athapapuskow, L. area (Manit.).—**0**, Bruce, E. L.

Athrotaxis.—**2**, Chandler, M. E. J., 1, 2.

Atikokania.—**0**, Rothpletz, A.

Atjeh (Sumatra).—**0**, Oppenoorth, W. F. F., 2.

Atlantic Ocean, Atlantis &.—**0**, Matthew, W. D., 4 ; **2**, Négris, P., 2.

—— ——, WEGENER'S theory &.—**0**, Sœrgel, W., 2.

—— —— (N.), sea-bottom.—**2**, Thoulet, J., 2, 3.

—— —— (——), volcanic dust-fall in.—**2**, Cole, G. A. J., 5.

—— —— (S.), islands.—**0**, Great Britain ; **1**, Kuehn, F.

—— —— (——), palæogeography.—**1**, Jaworski, E., 3 ; **2**, Gregory, J. W., 2.

—— —— (——), sea-bottom. — **1**, Kantor, M., 2.

Atlantic Ocean area.—**0**, Holtedahl, O., 15 ; **1**, Hobbs, W. H., 5.
Atlantis.—**0**, Matthew, W. D., 4 ; **2**, Négris, P., 2.
Atlas Mts. (Morocco).—**1**, Savornin, J., 5 ; **2**, Beaugé, A. ; Gentil, L., 3 ; Savornin, J., 2.
Atolls.—**2**, Gentil, L., 4.
——, Rose I.—**2**, Mayor, A. G.
——. *See also* Almost-atolls & Serpuline 'atolls.'
Atopite.—**2**, Rose, H.
Atrypidæ.—**0**, Mitchell, J., 2.
Attendorn (Westphalia).—**1**, Henke, W., 2.
Aturia.—**2**, Chapman, F., 4.
Åtvidaberg (Sweden).—**2**, Sundius, N., 2.
Aucella.—**2**, Brill, R.
Auchinoon (Edinburgh).—**0**, Day, T. C., 3.
Auckland (N.Z.).—**0**, Henderson, J. ; **1**, Ferrar, H. T. ; Gilbert, T. M. ; Henderson, J., 1, 4 ; **2**, Bartrum, J. A., 1–3 ; Ferrar, H. T., 2–5 ; Given, W. A. ; Henderson, J., 5, 6 ; Ward, G. A.
—— (——), drainage.—**0**, New Zealand, 3 ; **2**, New Zealand, 9.
—— (——), mineral resources.— **0**, Bartrum, J. A. ; **2**, Cropp, W. H. ; Ferrar, H. T., 1, 6 ; Henderson, J., 1, 3 ; **2**, Morgan, P. G., 10, 11, 13.
—— (——), stratigraphy.—**0**, Bartrum, J. A., 3, 5 ; **1**, Marshall, P. ; **2**, Gilbert, M. J.
Aude (France).—**2**, Barrabé, L. ; Bertrand, L., 2 ; Durand, J. F., 2. *See also* Montagne Noire.
Audierne (Finistère).—**1**, Collin, L., 2.
Augen-coal, Bavaria.—**2**, Stutzer, O., 3.
—— -gneiss, Iraq.—**2**, Reusch, H., 7.
—— - ——, Norway. — **2**, Goldschmidt, V. M., 6, 10.
—— - ——, Trentino.—**0**, Hradil, G.
Augite.—**1**, Bianchi, A., 3 ; Ōhashi, R. ; Washington, H. S., 6 ; Zambonini, F.; **2**, Rinne, F., 12; Washington, H. S., 12, 13.
——, aluminous.—**2**, Bœke, H. E., 2, 4 ; Tschermak, G., 1, 2.
—— -biotite-syenite. *See* Syenite.
Aulacoceras.—**2**, Buelow, E. U. v.
Auld (Ont.).—**2**, Burrows, A. G.
Auld Wives' Lifts, The (Stirlingsh.). —**0**, Stark, J.
Aulophyllum.—**1**, Salée, A., 2.
Auluroidea, Culm.—**1**, Hueffner, E.
Auriferous alluvium. *See* Alluvium.
Aurignacian, Glamorgan.—**0**, Sollas, W. J.
Aussee (Styria).—**2**, Diener, C., 8.
Australasia, implements.—**2**, Horne, G. *See also* Indo-Australasia.
Australia, geological survey.—**2**, Dunstan, B.
——, glacial periods.—**1**, Howchin, W., 9.
Australia, iron.—**2**, Great Britain, 24.
——, Tertiary.—**2**, Richards, H. C. ; Speight, R., 4.
Australite, Victoria.—**0**, Skeats, E. W., 4, 5.
Austria.—**0**, Gœtzinger, G., 3 ; Jugovics, L. ; Mylius, H. ; Sander, B., 7 ; **1**, Cole, G. A. J., 5 ; **2**, Sander, B., 2; Schmidt, W.
——, geological survey.—**0**, Geyer, G., 6 ; Tietze, E. E. A., 4, 6, 7, 9, 11 ; **1** & **2**, Geyer, G.
——, mineral resources.—**0**, Hammer, W., 6 ; **1**, Hœfer, H. v., 4 ; **2**, Dolch, M. ; Donath, E. ; Mohr, H. ; Petrascheck, W., 3.
——, physiography.—**0**, Aigner, A. ; Sœlch, J.
——, stratigraphy.—**0**, Gagel, C., 8 ; Petrascheck, W., 3.
——, tectonics.—**0**, Ampferer, O., 8, 16 ; Petrascheck, W.
—— (W.), tectonics.—**0**, Cornelius, H. P., 2 ; **1**, Ampferer, O., 4.
——. *See also* Alps (E.), Carinthia, Tauern Mts., *&c.*
Autreppe (Hainault).—**2**, Cornet, J., 4.
Autunite.—**0**, Muguet, A. ; **1**, Bellini, R., 3.
Auversian, France.—**0**, Morellet, L., 2 ; **2**, Moret, L.
——, Imbros I.—**2**, Ktenas, A.
Aventurine-felspar. *See* Felspar.
Avers (Graubünden).—**0**, Staub, R., 3 ; **1**, Staub, R., 9.
Aves.—**0**, Drevermann, F., 3 ; Stromer, E., 2 ; **1**, Abel, O., **2** ; Lambrecht, K.
——, Eocene.—**2**, Wetmore, A.
——, Pleistocene.—**1**, Newton, E. T. ; **2**, Želízko, J. V., 2.
——, Quaternary.—**2**, Bell, A., 2 ; Caterini, F.
——, Tertiary.—**0**, Marshall, P., 2.
——, cave-remains.—**0**, Andrews, C. W., 2 ; **1**, Anon., 16 ; **2**, Wetmore, A., 2.
——, in peat.—**2**, Sheppard, T., 7, 8.
Avesnes (Nord).—**2**, Leriche, M., 7.
Aveyron (France).—**1** & **2**, Monestier, J.
Avezzano (Abruzzi).—**0**, Friedlænder, I.
Avicula.—**2**, Weigelt, J.
Avignon (Vaucluse).—**0**, Termier, P. ; **1**, Termier, P., 2.
Avoca (N.Z.).—**1**, Morgan, P. G.
Avonian. *See* Carboniferous Limestone.
Axes, crystallographic.—**1**, Niggli, P., 3 ; **2**, Johnsen, A., 17.
Axes, stone, Baden.—**2**, Bierbaum, G.
Ayas valley (Piedmont).—**0**, Sacco, F., 32.
Ayrshire.—**0**, Dron, R. W. ; Macgregor, M., 2 ; Tyrrell, G. W., 1, 2 ; Wilson, G. V. ; **2**, Wilson, G. V.
Aywaille (Liége).—**0**, Anthoine, R., 2.

Azurite.—**0**, Balzac, F.
Azygograptus.—**2**, Elles, G. L., 2.

B

Babingtonite.—**1**, Zambonini, F.; **2**, Watanabé, M., 2.
Babitz (Brandenburg).—**1**, Gagel, C., 5.
Bacău (Moldavia).—**2**, Grozescu, H., 5; Preda, D. M., 1, 3–5.
Bacchus Marsh (Vict.).—**0**, Ferguson, W. H., 2; **2**, Keble, R. A.
Bacteria.—**1**, Bucher, W. H., 2; **2**, Parry, J.; Wills, R. G.
——, ores &.—**0**, Harder, E. C.; **1**, Anon., 8; **2**, Helbronner, A.; North, Ll.; Schneiderhœhn, H., 2.
——. *See also* Microörganisms.
Bactritidæ.—**0**, Grabau, A. W., 6.
Baculogypsina.—**1**, Leardi in Airaghi, Z., 2.
Bad-Nauheim (Hesse).—**0**, Schottler, W., 2.
Bad Œynhausen (Westphalia).—**1**, Mestwerdt, A., 3, 4.
Bad Wildungen (Waldeck).—**1**, Kranz, W., 2.
Baden (Germany).—**0**, Klemm, G., 6; **1**, Abels, J.; Vendl, A.; **2**, Bierbaum, G.; Freudenberg, W., 2; Huebscher, J.; Lais, R., 1, 2; Meigen, W.; Niggli, P., 10; Wilser, J. L.; Ziervogel, H.
—— (——), petrology.—**2**, Meigen, W., 2; Niggli, P., 9; Sœllner, J., 1–4.
—— (——), Trias.—**0**, Gaiser, E.; **1**, Bender, G.
—— (——), volcanism.—**2**, Reck, H., 4, 6.
——. *See also* Constance, L. area & Schwarzwald.
Baden (Lr. Austria).—**2**, Waagen, L.
Badlands, N. United States.—**2**, O'Harra, C. C.
Baganza R. area (Emilia).—**1**, Zuffardi, P.
Bagnères-de-Bigorre (Hautes-Pyrénées).—**2**, Viennot, P., 3.
Bagnères-de-Luchon (Haute-Garonne).—**0**, Lepape, A.
Bagnoles (Orne).—**0**, Loisel, P.; **1**, Censier, E.; Loisel, P.; **2**, Loisel, P.
Bahia (Brazil).—**2**, Siedel, P.
Bailleul (Nord).—**1**, Leriche, M., 4.
Bajocian, France.—**1**, Grossouvre, A. de, 3; **2**, Thiéry, P., 1, 2.
Baker's Hill (W. Austr.).—**0**, Feldtmann, F. R., 4.
Bakony (Hungary).—**1**, Tæger, H., 1, 2.
Baku (Caucasus).—**2**, Thompson, A. B.
Bala L. area (Merioneth).—**1**, Elles, G. L.; **2**, Elles, G. L., 5.
Balænoptera.—**2**, Gennevaux, M.
Balagne (Corsica).—**1**, Hollande, D., 2.
Balanophyllia.—**2**, Oppenheim, P., 5.
Balaton, L. area (Hungary).—**0**, Lóczy, L. v., *fil*, 2; Zalányi, B., 2; **1**, Zalányi, B., 4;
Balatonites.—**1**, Airaghi, C., 8; **1**, Rassmuss, H.
Balearic Is.—**0**, Gomez-Llucea, F. *See also* Iviza & Majorca.
Balerno (Edinburgh).—**0**, Day, T. C., 2.
Bali I. (D.E.I.).—**0**, Kemmerling, G. L. L., 1, 2.
Balingen (Hohenzollern).—**1**, Schmierer, T., 3.
Balkan area, Schela formation.—**2**, Murgoci, G., 9. *See also* 'Égéide.'
Balkan Penin.—**1**, Arabu, N., 3; **1**, Nopcsa, F., 2.
Ballan (Vict.).—**2**, Baragwanath, W., 3.
Ballino (Trentino).—**0**, Schwinner, R., 3.
Balmhorn (Bernese Alps).—**0**, Lugeon, M.
Baltic area, changes of level.—**0**, Suess, F. E.; **2**, Antevs, E., 1, 2.
—— ——, Quaternary.—**2**, Sundelin, U., 3.
—— —— (E.), glaciation.—**2**, Hausen, H.
Baltic Sea, coasts.—**1**, Otto, T.
Baluchistan, limburgite.—**0**, Das Gupta, H. C.
Banat (Romania).—**1**, Anon.; Emszt, K., 3; Rozlozsnik, P.; Schafarzik, F.; **2**, Martonne, E. de, 1, 2.
—— (——), soils.—**1**, Horusitzky, H., 2; Horváth, B. v.; Timkó, I., 3; Treitz, P., 2.
——. *See also* Bihar & Krassószörény.
Banbury (Oxon).—**1**, Richardson, L.
Banda Oriental (Uruguay).—**1**, Ameghino, F., 6.
Banffshire.—**1**, Mahood, A. E.; Read, H. H.
Banka (D.E.I.).—**0**, Van Lohuizen, H. J.; **2**, Schuurman, J. A.
'Banket,' Transvaal.—**1**, Mellor, E. T.; Pirow, H.
Bantam (Java).—**1**, Ziegler, K. G. J.
Bar, Mte. de (Côte d'Or).—**2**, Chaput, E., 2.
Baranya (Hungary).—**0**, Kormos, T., 2; Vadász, M. E.; **1**, Lóczy, L. v. *fil*; Mauritz, B.; Vadász, M. E., 1, 3.
Baraque Michel (Liége).—**2**, Anten, J., 2.
Barbados (W. Indies).—**0**, Harrison, J. B., 1, 2.
Barcaldine (Queensl.).—**2**, Jensen, H. I., 4, 5.
Barcelona (Spain), potash.—**0**, Gale, H. S.; **2**, Born, A.
Bard (Piedmont).—**1**, Zuffardi, P., 3.

Barenton (Manche).—**0**, Fraipont, C., 2.
Bari (Puglia).—**1**, Dominicis, A. de, 1, 3.
Barite. *See* Barytes.
Barium minerals.—**0**, Greenwood, H. W., 2 ; **1**, Imperial Mineral Resources Bureau, 14.
—— silicates.—**2**, Eskola, P.
Barkerville (B.C.).—**2**, Johnston, W. A., 5.
Barkuda I. (Madras Presidency).—**2**, Annandale, N.
Barmen (Rheinland).—**1**, Bærtling, R.
Barnehurst (Kent).—**0**, Priest, S.
Barnwell (Cambs).—**0** & **1**, Chandler, M. E. J.
Barnwood (Glos).—**0**, Baddeley, St. C.
Barometer, geological mapping &.—**0**, Lahee, F. H.
Barosaurus.—**0**, Lull, R. S.
Barr (Alsace).—**0**, Kissling, A.
Barrandian, Bohemia.—**2**, Kodym, O., 3.
Barremian, Gard.—**0**, Brun, P. de.
Barrettia-beds, Jamaica.—**2**, Trechmann, C. T., 2.
Barrhead (Renfrewsh.)—**0**, Hinxman, L. W.
Barro, Mte. (Lombardy).—**1**, Bussandri, G.
Bartlett Trough (W. Indies).—**0**, Taber, S.
Bartonian, Armorican Massif.—**0**, Picquenard, C. A.
——, Hampshire.—**1**, White, H. J. O., 2.
Barytes.—**0**, Behr, F. M., 3 ; Reis, O. M. ; **2**, Andrée, K., 2 ; Grahmann, W. ; Henglein, M., 3.
——, Alaska.—**1**, United States, 2.
——, Canada.—**1**, Spence, H. S., 2.
——, Central Australia.—**0**, Howchin, W., 8.
——, Czechoslovakia.—**0**, Knett, J. ; **2**, Kretschmer, F., 2.
——, Germany.—**0**, Klemm, G., 11 ; **1**, Schmidt, W. E. ; Steinmetz, H., 2 ; **2**, Bentz, G. ; Bergeat, A., 1, 2 ; Meyer, H. L. F., 4.
——, Great Britain.—**2**, Wilson, G. V., 2.
——, Japan.—**0**, Ōhashi, R., 3.
——, Mexico.—**2**, Wittich, E., 9.
——, Norway.—**1**, Bugge, C.
——, Ontario.—**0**, Walker, T. L. ; **2**, Spence, H. S., 3.
——, Rajputana.—**2**, Roy, S. K.
——, Sardinia.—**1**, Tacconi, E., 2.
——, Shropshire.—**2**, Hall, T. C. F.
——, United States.—**0**, Fohs, F. J., 1, 4 ; Hoeing, J. B., 2 ; United States, 5, 8 ; **1**, United States, 2 ; **2**, United States, 9, 11.
——, W. Australia.—**1**, Feldtmann, F. R., 2.
——, Westmorland.—**1**, Bramall, V.
Barytes, crystallography.—**0**, Buttgenbach, H., 2 ; **1**, Repossi, E., 6 ; **2**, Mélon, J. ; Veit, K.
Barytocœlestine.—**2**, Grahmann, W.
Bas Congo (Congo Belge).—**1**, Dorlodot, L. de.
Basalt.—**2**, Hibsch, J. E. ; Washington, H. S., 8.
——, Arabia.—**1**, Kober, L.
——, Arctica.—**0**, Holmes, A., 10 ; **2**, Mercanton, P. L.
——, Ardèche.—**1**, Anderson, T.
——, Austria.—**0**, Jugovics, L. ; **1**, Jugovics, L., 2 ; **2**, Sigmund, A.
——, Baden.—**2**, Niggli, P., 9 ; Reck, H., 4, 6.
——, Banat.—**1**, Emszt, K., 3.
——, Bohemia.—**2**, Folgner, R. ; Seemann, F.
——, Edinburgh.—**1**, Peach, B. N.
——, Eifel.—**1**, Haardt, W. ; Leppla, A., 7.
——, Hawaii.—**0**, Powers, S., 3.
——, Hesse-Nassau.—**1**, Blanckenhorn, M., 1–6 ; Eitel, W., 5 ; Kaiser, E., 3, 4 ; Pfisterer, H. ; Ramdohr, P. ; Schauf, W. ; **2**, Apel, K. ; Eitel, W., 3 ; Harrassowitz, H. L. F., 3 ; Ramdohr, P., 1, 2 ; Schwantke, A.
——, Hungary.—**0**, Jugovics, L. ; **1**, Jugovics, L., 2.
——, Kenya.—**2**, Gregory, J. W.
——, Kurdistan.—**0**, Bruckmoser, J. H.
——, New South Wales.—**0**, Morrison, M.
——, Nigeria.—**1**, Mesch, D.
——, Oberpfalz.—**0**, Richarz, S.
——, Otago.—**2**, Grange, L. I.
——, Palestine.—**1**, Fuchs, E.
——, Peeblesshire.—**0**, Day, T. C.
——, Portuguese E. Africa.—**0**, Holmes, A., 9 ; **1**, Young, R. B.
——, Rhön.—**1**, Grupe, O., 4.
——, Silesia.—**1**, Guerich, G. ; Swoboda, —.
——, Thuringia.—**0**, Naumann, E. ; **1**, Naumann, E., 2.
——, United States.—**1**, Gordon, S. G., 3 ; Mansfield, G. R., 3.
——, Venetia.—**1**, Maddalena, L. ; Pretto, O. de.
——, Victoria.—**0**, Ferguson, W. H., 3; James, A. V. G. ; **1**, James, A. V. G.
——, W. Australia.—**2**, Farquharson, R. A., 2.
——, inclusions in, Germany.—**1**, Schuermann, E. ; **2**, Rose, H., 2 ; Skœtsch, C. ; Wurm, C.
——, nephelite-, Baden.—**2**, Meigen, W., 2.
——, porphyritic, Angola.—**0**, Holmes, A., 4.
——, tholeiitic, S. Australia.—**2**, Tilley, C. E.
Basalt-ash-tuff. *See* Tuffs.
—— -glass. *See* Glass.
—— -tuff. *See* Tuffs.

Basaltic rocks, Rheinland.—**2**, Brauns, R., 13.
Basanite, Angola.—**0**, Holmes, A., 4.
Basel (Switzerland).—**0**, Gutzwiller, A., 1, 2 ; Muehlberg, F. ; **1**, Lehner, E. ; **2**, Preiswerk, H., 2.
—— (——), glaciation.—**0**, Hassinger, H. ; Leuthardt, F. ; **1**, Leuthardt, F., 2.
—— (——), Jurassic.—**1**, Leuthardt, F. ; **2**, Leuthardt, F., 1, 2.
Basel museum (Switzerland).—**1**, Sarasin, F.
Basement conglomerate series, N. England.—**0**, Butterfield, J. A., 2 ; **1**, Butterfield, J. A.
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—— (——), Cretaceous-Eocene.—**0**, Douvillé, H., 7 ; Halkyard, E. ; Lapparent, J. de ; **1**, Douvillé, H., 21 ; Lapparent, J. de, 2 ; Welsch, J.
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Bauxite-clays. *See* Clays.
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Bayrischer Wald (Bavaria).—**1**, Laubmann, H. ; Lehner, A.
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'Beach rock,' Tortugas.—**0**, Field, R. M.
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Beaconsfield (Tasmania).—**0**, Reid, A. M., 2.

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—— (Central).—**1**, Fourmarier, P.
—— (E.).—**1**, Quaas, A., 5, 7 ; Renier, A., 1, 2 ; **2**, Anten, J., 2 ; Asselberghs, E., 4 ; Lohest, M., 4 ; Stahl, A., 2.
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Bellerophontacea.—**1**, Reed, F. R. C., 1, 2.
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Blattoidea.—**0**, Cockerell, T. D. A., 2 ; **1**, Bolton, H., 2 ; Meunier, F., 2.
Blaue Kuppe (Hesse).—**2**, Ramdohr, P., 2.
Blea Wyke Point (Yorks).—**0**, Wroot, H. E., 2.
Bleaching clays. *See* Clays.
Blende. *See* Sphalerite.
Block-faulting.—**1**, Wolff, —, 2.
Blödite.—**0**, Millosevich, F.
'Blood-rain.' *See* Dust.
Blow-pipe.—**1**, Holmquist, P. J., 6 ; **2**, Braly, A. ; Dautwitz, W. ; Lewis, J. V.
Blown sands. *See* Sands.
Bloxham (Oxon).—**1**, Richardson, L., 3
Blue Bell Hill (Kent).—**2**, Dibley, G. E.
Blue marl, Basses-Pyrénées.—**0**, Halkyard, E.
Bober R. area (Silesia).—**1**, Zimmermann, E., I., 6.
Bockenem (Hanover).—**1**, Grupe, O., 5 ; Haack, —.
Bodelshausen (Hohenzollern). — **1**, Schmierer, T., 3.
Bodmi (Berne).—**2**, Gerber, E., 2.
Bog iron, Belgium (E.).—**1**, Quaas, A., 7.
—— ——, Finland.—**2**, Scheele, K. v.
—— ——, Germany.—**1**, Quaas, A., 7 ; **2**, Gæbert, C. ; Schreiter, R., 2.
—— ——, Norway.—**0**, Vogt, J. H. L.
—— ——, Sweden.—**2**, Naumann, E.
Bogno, Mte. (Lombardy).—**1**, Salmojraghi, F.
Bogs. *See* Peat-bogs.
Bohemia.—**0**, Berg, G. ; Kettner, R., 1, 2 ; Želízko, J. V., 4, 8, 11 ; **1**, Hœfer, H. v., 2 ; **2**, Fleissner, H.; Kettner, R., 3 ; Kodym, O., 2 ; Matějka, A., 1, 2 ; Seemann, F.
——, Cretaceous.—**0**, Thuma, F., 3 ; Woldřich, J. ; Zalhálka, C. ; **2**, Zahálka, B., 1, 2 ; Želízko, J. V.
——, mineral resources.—**0**, Beck, R., 1, 2 ; Knett, J. ; Želízko, J. V., 5 ; **1**, Frieser, A. ; **2**, Beck, R., 6 ; Krusch, P., 3 ; Petrascheck, W., 3 ; Slavík, F. ; Smetana, V., 2 ; Stočes, B.
——, Palæozoic.—**0**, Kettner, R., 4 ; Woldřich, J., 2 ; **2**, Kettner, R., 5 ; Kodym, O.
——, petrology.—**0**, Senger, A. ; Sokol, R., 2 ; Wurm, A., 3 ; **2**, Folgner, R. ; Rosický, V. ; Sokol, R., 2, 4.
——, Pleistocene.—**0**, Vortisch, W. ; Želízko, J. V. ; **2**, Želízko, J. V., 2.
——, Silurian.—**0**, Nowak, E. ; **2**, Perner, J., 2, 3.
——, tectonics.—**0**, Hinterlechner, K. ; Kettner, R., 5 ; Wæhner, F., 1, 2 ; **1**, Stočes, B. ; **2**, Kodym, O., 3 ; Matějka, A., 3 ; Moscheles, J., 1, 2 ; Seidlitz, W. v. ; Wæhner, F.
——, Tertiary.—**0**, Moscheles, J., 2 ; **1**, Wenz, W., 2 ; **2**, Liebus, A., 2.
—— (Central), Palæzoic.—**2**, Katzer, F. ; Nowak, E., 1, 2.
——. *See also* Erzgebirge *&* Riesengebirge.
Böhmerwald (Bavaria-Bohemia).—**0**, Sokol, R., 2 ; **2**, Seidlitz, W. v.
Böhmisch-Leipa (Bohemia). — **0**, Wurm, A., 3.
'Bohnerz.'—**2**, Lang, R., 2.
——, Germany.—**0**, Bræuhæuser, M. ; **1**, Blanckenhorn, M. ; Moos, A. ; **2**, Dietrich, W. O., 9.
Bohrs, atomic models.—**2**, Born, M.
Bolboporites.—**2**, Yakovlev, N. N.

Bolca, Mte. (Venetia).—**2**, Fabiani, R., 2.

Bolderian, Belgium.—**2**, Leriche, M.

Bolgart (W. Austr.).—**0**, Feldtmann, F. R., 3.

Bolivia.—**0**, Miller, B. L. ; **2**, Heald, K. C. ; Lindgren, W., 2 ; Mather, K. F.

——, mineral resources.—**0**, Dailey, J. G.; Davy, W. M. ; Herold, S. C. ; **1**, Brehm, H. ; Singewald, J. T., *fil*, 1, 2 ; **2**, Holland, A. A. ; Pauly, A. ; Singewald, J. T. *fil.*

——, stratigraphy.—**0**, Berry, E. W., 4 ; **2**, Berry, E. W., 1, 5, 19 ; Boule, M. ; Fritzsche, C. H., 2.

Bolkenhain (Silesia).—**1**, Haack, W. ; Zimmermann, E., I, 2, 4.

Bolzano (Trentino).—**0**, Klebelsberg, R. v., 4.

Bom Jesus dos Meiras (Bahia).—**2**, Siedel, P.

Bombay I.—**2**, Fox, C. S.

Bombay Presidency.—**0**, Whitney, W. B. ; **1**, Middlemiss, C. S. ; **2**, Fox, C. S., 1, 5.

Bonaventure conglomerate, Quebec.—**1**, Bagg, R. M. ; Clarke, J. M., 5.

Bone-beds, Belgium (S.E.).—**1**, Asselberghs, E., 5.

—— -breccia. *See* Breccias.

Boneo Swamp (Vict.).—**0**, Chapman, F., 3.

Bo'ness (Linlithgowsh.).—**0**, Cadell, H. M., 3.

Bonn (Rheinland).—**1**, Jungbluth, F. A. ; Zimmermann, E., II, 8, 9.

Boô (Hautes-Pyrénées).—**1**, Lapparent, J. de.

Boogardie (W. Austr.).—**0**, Feldtmann, F. R., 5.

Boolarra (Vict.).—**2**, Ferguson, W. H., 2.

Bootle (Lancs).—**2**, Wray, D. A., 2.

Borates.—**1**, Imperial Mineral Resources Bureau, 3 ; Jochamowitz, A.

——, United States.—**0**, United States, 4, 5.

——. *See also* Colemanite.

Bordeaux area (Gironde).—**2**, Dollfus, G. F., 4.

Bordelais (France).—**2**, Dutertre, A. P. ; Repelin, J.

Borinage (Hainault).—**1**, Capiau, H.

Borings.—**0**, Trager, E. A. ; **1**, Mead, W. J. ; Roscoe, H. ; **2**, Kranz, W., 2.

——, Alberta.—**1**, Slipper, S. E.

——, Argentina.—**1**, Bodenbender, G.

——, Austria.—**0**, Toula, F., 2 ; **1**, Toula, F. ; **2**, Ampferer, O., 3.

——, Belgium.—**0**, Cornet, J., 1, 4 ; **1**, Fourmarier, P., 5 ; Halet, F., 1, 2 ; **2**, Bataille, L., 2 ; Cornet, J., 3 ; Schellinck, F., 1, 2.

——, Berne.—**1**, Arbenz, P., 2 ; Gerber, E., 3 ; Werveke, L. v.

Borings, Brandenburg.—**0**, Hucke, K. ; Keilhack, K., 5 ; **1**, Klautzsch, A., 5 ; Michael, R., 3 ; Wahnschaffe F., 2 ; **2**, Linstow, O. v., 2.

——, Buckinghamshire.—**0**, Booth, W. H. ; **1**, Whitaker, W., 2.

——, Cheshire.—**0**, Jones, T. A., 3 ; Maidwell, F. T.

——, Congo Belge.—**0**, Richet, E.

——, Cumberland.—**0** & **1**, Smith, B., 2.

——, Czechoslovakia.—**0**, Toula, F., 3 ; **2**, Liebus, A., 2 ; Seemann, F.

——, Denmark.—**1**, Bœggild, O. B. ; Milthers, V., 3, 7.

——, E. Prussia.—**1**, Jentzsch, A., 4 ; Kaunhowen, F., 3 ; Klautsch, A., 3 ; Meyer, E., 2, 4 ; Tornau, F.

——, Edinburgh.—**0**, Tait, D.

——, England.—**2**, Simmersbach, B., 9 ; Whitaker, W., 2.

——, Esthonia.—**0**, Jentzsch, A.

——, Europe (Central).—**0**, Zelányi, B. ; **1**, Zalányi, B., 4.

——, France.—**0**, Cornet, J., 4 ; Werveke, L. v., 15, 20 ; **1**, Douvillé, H., 16 ; Gignoux, M., 2 ; Gosselet, J. ; Grossouvre, A. de, 2 ; Pruvost, P., 2 ; Termier, P. ; **2**, Heim, Arnold.

——, Funafuti I.—**0**, Skeats, E. W., 8.

——, Germany (S.W.).—**0**, Werveke, L. v., 15.

——, Gloucestershire.—**0**, Richardson, L. ; **1**, Pringle, J. ; **2**, Richardson, L., 1–3.

——, Great Britain.—**1**, Sherlock, R. L.

——, Hamburg area.—**1**, Wolff, W., 4.

——, Hanover.—**1**, Kœrt, W. ; May, W. ; Stoller, J., 2 ; **2**, Gœbel, F.

——, Hertfordshire.—**1**, Whitaker, W., 2.

——, Hesse.—**0**, Schottler, W., 5, 6.

——, Holland.—**2**, Bœhm, J. ; Pannekoek van Rheden, J. J.

——, Hungary.—**1**, Zalányi, B., 3.

——, I. of Man.—**0**, Gregory, J. W., 4.

——, Italy (N.).—**0**, Zaccagna, D. ; **1**, Mariani, E., 7, 13 ; Merciai, G., 2.

——, Kent.—**2**, Simmersbach, B., 9.

——, Lancashire.—**0**, Jones, T. A., 3, 5 ; **2**, Wray, D. A., 2.

——, Lausitz.—**2**, Gagel, C.

——, Linlithgowshire.—**2**, Cadell, H. M.

——, Lippe.—**1**, Mestwerdt, A., 4.

——, Luxemburg (Duchy).—**0**, Werveke, L. v., 15.

——, Midlands.—**0**, Bromehead, C. E. N., 1, 2.

——, New South Wales.—**2**, Harper, L. F., 4.

——, Norfolk.—**1**, Whitaker, W. ; **2**, Boswell, P. G. H., 4.

Borings, Nottinghamshire.—**0**, Ford, J.; Longden, G. A.; **2**, Mitton, H. E.
——, Oldenburg.—**0**, Weingærtner, R. M.
——, Poland.—**1**, Jentzsch, A., 4, 6.
——, Pomerania.—**0**, Hess von Wichdorff, H., 2; **1**, Kranz, W.; Linstow, O. v., 8; Menzel, H., 3.
——, Prussia.—**0**, Jentzsch, A., 4; **1**, Schrœder, H., 4, 6.
——, Queensland.—**1**, Reid, J. H.
——, Schleswig-Holstein.—**1**, Wolff, W., 2.
——, Scotland (Central).—**1**, Cadell, H. M.
——, Silesia.—**1**, Jentzsch, A., 6; Quitzow, W.
——, S. Australia.—**0**, Howchin, W., 2; **1**, Ward, L. K., 5–7.
——, Surrey.—**0**, Whitaker, W.
——, Sweden.—**0**, Gavelin, A.; **2**, Hede, J. E.
——, Tunis.—**1**, Joleaud, L., 6.
——, Tyrone.—**2**, Johnson, T., 1, 3.
——, United States.—**0**, White, I. C.; **1**, Goldman, M. I., 2; Jillson, W. R., 2, 6, 9, 10, 13–15, 23, 25, 26; Miller, A. M.; Semmes, D. R.; Stout, W., 1, 2; **2**, Cady, G. H.; Darton, N. H., 2; Jillson, W. R., 3, 7, 11.
——, Victoria.—**2**, Chapman, F., 2.
——, Warwickshire.—**2**, Richardson, L., 4.
——, Weald.—**0**, Lamplugh, G. W., 2.
——, W. Australia.—**1**, Maitland, A. G., 5, 6.
——, Westphalia.—**1**, Mestwerdt, A., 4.
——, Wiltshire.—**2**, Pringle, J.; Richardson, L., 5.
——, Württemberg.—**0**, Fraas, E., 2.
——, Yorkshire.—**0**, Lamplugh, G. W., 5; **2**, Gilligan, A.; Sheppard, T., 4.
Borings (organic).—**0**, Dœrpinghaus, W. T., 2; **2**, Reis, O. M., 3.
Borneo, petroleum.—**1**, Kewley, J.; **2**, Redfield, A. H.
—— (British).—**0** & **1**, Pilz, R.; **2**, Wanner, J., 2.
—— (Dutch).—**0**, Van Es, L. J. C.; **1**, Felix, J., 3; Frijling, H.; Krol, L. H.; Loth, J. E.; **2**, Jezler, H.; Van Es, L. J. C., 1, 2.
Bornholm (Denmark).—**1**, Anon., 10; Linstow, O. v., 10; Malling, C.; Ravn, J. P. J.; **2**, Kalb, G.; Ravn, J. P. J.
Bornite.—**1**, Walker, T. L.; **2**, Buttgenbach, H.; Kraus, E. H.; Uglow, W. L., 2.
Boron minerals.—**1**, Foshag, W. F., 5.
Borostyánkö. *See* Bernstein.
Borrowdale volcanic series, Lake District.—**1**, Green, J. F. N.
Borsod (Hungary).—**0**, Schréter, Z.; **1**, Franzenau, A.; Kadić, O., 4; *See also* Bükk Mts.
Boryslaw (Lwow).—**1**, Doliński, J., 2.
Bos.—**0**, Flick, O.; **2**, Athanasiu, S. C., 7.
Bos d'Arros (Basses-Pyrénées).—**0**, Douvillé, H., 7.
Bösenstein (Styria).—**0**, Heritsch, F., 3; Kittl, E.; **1**, Kittl, E.
Bosnia (Yugoslavia).—**0**, Nopcsa, F., 2; **2**, Katzer, F., 3.
Bosphorus area.—**0**, Wolff, W., 3.
Bossons glacier (Haute-Savoie).—**2**, Arsonval, — d'.
Boston (Mass.).—**0**, Shimer, H. W.
Boston Creek (Ont.).—**2**, Burrows, A. G., 2.
Bothriodon.—**1**, Troxell, E. L.
Böttingen (Württemberg).—**1**, Berckhemer, F.
Bouchardia.—**2**, Doello-Jurado, M.
Bouches-du-Rhône (France). — **1**, Brun, P. de, 2; Dollfus, G. F., 2, 3; Roman, F., 2; **2**, Denizot, G.; Zurcher, P.
Bouguenais (Loire-Inférieure). — **2**, Ferronnière, G., 4.
Boulangerite.—**0**, Shannon, E. V., 14; **1**, Shannon, E. V., 6; **2**, Shannon, E. V., 7.
Boulder-clay, Durham.—**0**, Robson, S.
—— ——, Massachussetts. — **0**, Norse, E. S.
—— ——. *See also* Chalky boulder-clay.
Boulder-conglomerate, N. India.—**0**, Pilgrim, G. E.
Boulders, Austria.—**0**, Sander, B., 7.
——, Belgium.—**2**, Oostingh, C. H.
——, Caithness.—**0**, Lee, G. W., 3; Sutherland, A.
——, Cambridgeshire.—**1**, Whealler, J. E. A.
——, Durham.—**0**, Durham.
——, Europe (E.).—**1**, Hausen, H.
——, Germany.—**0**, Gagel, C., 5; Harbort, E.; Jentzsch, A., 3; Kegel, W.; Oppenheim, P., 9; **1**, Ernst, W.; Gagel, C., 6; Kegel, W.; Korn, J., 7; Meyer, H. L. F., 5; Muehlen, L. v. z.; **2**, Jentzsch, A., 2; Kalb, G., 2; Œrtel, W., 2; Oostingh, C. H.; Reitz, H., 1, 2; Richter, M., 2.
——, Holland.—**2**, Oostingh, C. H.; Quaas, A.; Wichmann, A.
——, Iowa.—**2**, Kay, G. F., 2.
——, New Zealand.—**0**, Park, J., 2.
——, Northumberland.—**0**, Durham.
——, Norway.—**2**, Holtedahl, O., 4.
——, Poland.—**0**, Gagel, C., 9; Jentzsch, A., 3; **1**, Korn, J., 7.
——, S. Australia.—**2**, Howchin, W., 2.
——, W. Australia.—**1**, Clarke, E. de C.
——. *See also* Erratics.

Boulia (Queensl.).—**0**, Dunstan, B.

Boulonnais (Pas-de-Calais).—**0**, Robinson, J. W. D. ; **1**, Dollé, L. ; Lapparent, J. de, 4 ; Robinson, J. W. D.

Bourg-Saint-Maurice (Savoie). — **0**, Termier, P., 11.

Bourlon (Pas-de-Calais).—**1**, Briquet, A.

Bournemouth (Hants).—**0**, Bury, H. ; Carus-Wilson, C. ; Ord, W. T. ; **2**, Bury, H. ; Ord, W. T., 1, 2 ; Smith, R. A.

Bournonite.—**1**, Zimányi, K., 2 ; **2**, Muegge, O., 12.

Boussingaultite.—**0**, Larsen, E. S., 4.

Boussu (Hainault).—**0**, Cornet, J., 2 ; **1**, Stainier, X., 5.

Bovey Tracey (Devon).—**0**, Strahan, A., 4.

Bovinæ.—**1**, Del Vecchio, C.

Bozen. *See* Bolzano.

Brabant (Belgium).—**1**, Fourmarier, P. ; Halet, F., 4 ; Hankar-Urban, A. ; Stevens, C. ; **2**, Fourmarier, P., 3 ; Hanker-Urban, A.; Leriche, M., 4 ; Renier, A., 2.

—— (——), Eocene.—**1**, Halet, F., 2 ; Leriche, M. ; **2**, Leriche, M., 5, 9.

—— (——), Palæozoic.—**0**, Fourmarier, P. ; **1**, Asselberghs, E., 3 ; Leriche, M., 3.

—— (——), water.—**1**, Halet, F. ; **2**, Steenhuis, J. F. ; Stevens, C.

Brachiopod beds, Midlands.—**0**, Sibly, T. F. ; **1**, Alkins, W. E.

—— limestones, Morocco.—**0**, Kilian, W.

Brachiopoda.—**0**, Buckman, S. S. ; Klæhn, H., 2 ; **2**, Dietrich, W. O., 8 ; Doello-Jurado, M. ; Frederiks, G., 2, 3 ; Grabau, A. W., 3 ; Leidhold, C., 3 ; Thomson, J. A.

——, Cambrian.—**0**, Bassler, R. S. ; Butler, B. S. ; Mansuy, H. ; Rothpletz, A. ; **1**, Cobbold, E. S. ; **2**, Dienemann, W. ; Holtedahl, O., 5 ; Kiær, J., 5 ; Metzger, A. A. T.

——, Carboniferous. — **0**, Butler, B. S. ; Butts, C., 1, 2 ; Frech, F., 2 ; Greger, D. K., 2 ; Hinds, H., 2 ; Holtedahl, O., 3, 4 ; Milton, J. H., 2 ; North, F. J. ; Reed, F. R. C., 2 ; Ulrich, E. O. ; **1**, Alkins, W. E., 2 ; Benson, W. N., 2 ; **2**, Greene, G. K. ; Hayasaki, I., 5, 6 ; Jackson, J. W., 1, 2 ; Mansuy, H., 2 ; Morningstar, H. ; Smyth, L. B.

——, Cretaceous.—**0**, Brun, P. de ; Clark, W. B., 2 ; Hadding, A. ; Hennig, E., 2 ; **1**, Douvillé, H., 3 ; Ravn, J. P. J. ; Rosenkrantz, A., 2 ; **2**, Cottreau, J. ; Nielsen, K. B. ; Ravn, J. P. J.

——, Culm.—**1**, Hueffner, E. ; Weigelt, J.

Brachiopoda, Devonian.—**0**, Butler, B. S. ; Butts, C. ; Chapman, F., 6 ; Dunbar, C. O. ; Frech, F., 2 ; Greger, D. K., 2 ; Leidhold, C., 2 ; Mitchell, J., 2 ; Nettelroth, H. ; **1**, Asselberghs, E. ; Dahmer, G., 2–4 ; Dienst, P. ; Dœring, A. ; Dunbar, C. O. ; Fuchs, A., 4 ; Heritsch, F. ; Hueffner, E., 2 ; Lieber, H. ; Mitchell, J. ; Quiring, H., 2 ; Reed, F. R. C., 3 ; Richter, R., 2, 3 ; Schulz, E. ; Spriestersbach, J. ; Vieetor, W. ; **2**, Dœring, A., 2 ; Hayasaki, I., 5 ; Kindle, E. M. ; Mansuy, H., 2, 10, 12 ; Reed, F. R. C., 2 ; Shannon, W. G. St. J. ; Winterfeld, F.

——, Eocene.—**0**, Fabiani, R., 7 ; **2**, Fabiani, R., 1, 8.

——, Jurassic.—**1**, Buckman, S. S. ; Douvillé, H., 3 ; Leidhold, C. ; Newton, R. B. ; Rollier, L., 2 ; **2**, Behrendsen, O. ; Buckman, S. S., 3 ; Mansuy, H., 4 ; Moutier, A., 2.

——, Lias.—**0**, Buckman, S. S., 2 ; **1**, Alessandri, G. de, 3 ; Caterini, F., 1, 2 ; Douglas, J. A. ; Franceschi, R. ; Tilmann, N., 2.

——, Miocene.—**0**, Stefanini, G., 2 ; **2**, Stefanini, G.

——, Neogene.—**0**, Berry, E. W., 4.

——, Oligocene.—**2**, Fabiani, R.

——, Ordovician.—**0**, Bassler, R. S. ; Born, A. ; Butler, B. S. ; Butts, C. ; Clark, T. H. ; Holtedahl, O., 9, 12 ; McEwan, E. D., 2 ; Miller, A. M. ; Reed, F. R. C. ; Shaw, E. W., 5 ; **1**, Bekker, H. ; Bradley, J. H., *fil* ; Raymond, P. E., 3 ; **2**, Bekker, H. ; Hayasaki, I., 5 ; Holtedahl, O. ; Mansuy, H., 3 ; Ruedemann, R., 2 ; Vinassa de Regny, P. ; Wilson, A. E.

——, Palæozoic.—**0**, Holtedahl, O., 6 ; Mansuy, H., 3, 5, 6.

——, Permian.—**0**, Butler, B. S. ; Haack, W. ; **1**, Broili, F. ; Stauffer, C. R., 2 ; Trechmann, C. T., 2 ; Vogl, V. ; **2**, Broili, F., 7 ; Hayasaki, I., 2, 4, 5 ; Hummel, K.

——, Permo-Carboniferous.—**0**, Mansuy, H., 4 ; **2**, Colani, M. ; Mansuy, H., 5.

——, Pliocene.—**0**, Dall, W. H., 2 ; Yokoyama, M. ; **2**, Yokoyama, M.

——, Quaternary.—**0**, Dall, W. H., 2.

——, Rhætic.—**1**, Mariani, E., 15.

——, Silurian.—**0**, Butler, B. S. ; Butts, C. ; Chapman, F., 6 ; Holtedahl, O., 9 ; McEwan, E. D., 2 ; Mitchell, J., 2 ; Nettelroth, H. ; Reed, F. R. C. ; **1**, Mitchell, J. ; **2**, Elles, G. L., 5 ; Hayasaki, I., 5.

——, Tertiary.—**0**, Fabiani, R., 2 ; Thomson, J. A., 5.

Brachiopoda, Trias.—**0**, Kittl, E., 2 ; Spitz, A., 10 ; **1**, Assmann, P., 4 ; Diener, C., 4 ; Mariani, E. ; **2**, Krumbeck, L., 3 ; Mansuy, H., 4, 9 ; Toni, A. de.
——, nomenclature.—**0**, Buckman, S. S., 3 ; Thomson, J. A., 6.
Brachiosaurus.—**2**, Janensch, W.
Brachyceratops.—**1**, Gilmore, C. W., 2.
Brachygnathosuchus.—**2**, Mook, C. C., 3.
Brachyura, Cretaceous.—**2**, Withers, T. H., 5.
——, Eocene.—**0**, Fabiani, R., 7 ; **2**, Bosworth, T. O.; Woods, H.
——, Jurassic.—**0**, Muecke, K. v. ; Stolley, E. ; **1**, Richardson, L., 5 ; **2**, Fischer, P. H., 1, 2.
——, Pliocene.—**1**, Bell, A. ; **2**, Dickerson, R. E., 3.
——, Tertiary.—**1**, Airaghi, C., 4.
——, Trias.—**0**, Stolley, E. ; Trauth, F.
Bracknell (Berks).—**2**, Wrigley, A.
Bracquegnies. *See* Meule de Bracquegnies.
Bradfield (Yorks).—**0**, Armstrong, A. L.
Bragonze (Venetia).—**1**, Maddalena, L.
Brahmaputra R. (India).—**0**, Pascoe, E. H.
Brâmâ vol. (Java).—**2**, Kemmerling, G. L. L., 3.
Branchiopoda. *See* Phyllopoda.
Branchiosauridæ.—**1**, Watson, D. M. S., 3.
Brandenberg (Tyrol).—**2**, Ampferer, O., 5.
Brandenburg (Germany).—**0**, Wunderlich, E. ; **1**, Picard, E. ; Reck, H. ; Schneider, O. ; **2**, Gothan, W.
—— (——), borings.—**0**, Hucke, K. ; Keilhack, K., 5 ; **1**, Klautzsch, A., 5 ; Michael, R., 3.
—— (——), glacial deposits. — **0**, Jentzsch, A., 2 ; **1**, Fliegel, G., 3 ; Gagel, C., 3 ; Tietze, O., 5.
—— (——), Quaternary.—**0**, Gagel, C., 3 ; **1**, Clausnitzer, —, 2 ; Gagel, C., 2, 5 ; Kaunhowen, F., 6 ; Keilhack, K., 3 ; Schucht, F. ; Wahnschaffe, F., 2 ; **2**, Keilhack, K., 3.
—— (——). *See also* Berlin area.
Brandenburg (E. Prussia).—**1**, Tornau, F.
Brandesburton (Yorks).—**2**, Phemister, J.
Brandy Gill (Cumberland). — **0**, Holmes, A., 8.
Brannerite.—**0**, Hess, F. L. ; Wells, R. C., 2.
Brasso area (Transylvania). — **1**, Jekelius, E., 1–3 ; Wachner, H.
Bratislava (Slovakia).—**0**, Toula, F., 3.
Bray series, Ireland.—**1**, Cole, G. A. J., 2.
Brazil.—**0**, Betim Paes Leme, A.; Branner, J. C. ; Walls, R. R. ; **1**, Arlt, H. ; Draper, D. ; **2**, Walther, K., 2.
——, mineral resources.—**0**, Hambloch, E. ; Harder, E. C., 2 ; Lee, T. H. ; **1**, Pontie, A. M. ; **2**, Rimann, E., 3 ; Simmersbach, B., 10 ; Williams, H. E.
——. *See also* Bahia, Matto Grosso, *&c.*
Brazza I. (Dalmatia).—**0**, Kerner, F. v., 2.
Breccias.—**1**, Howchin, W., 4.
——, France.—**0**, Stevens, C. ; **1**, Douvillé, H., 13 ; Lapparent, J. de.
——, Iowa.—**2**, Norton, W. H.
——, New South Wales.—**1**, Osborne, G. D.
——, New Zealand.—**0**, Park, J., 2 ; **1**, Henderson, J.
——, Rheinland.—**1**, Hœpfner, A.
——, Tyrol.—**1**, Ampferer, O., 3 ; Guerich, G., 3.
——, bone-, Tuscany.—**2**, Caterini, F.
——, crush-, Saxony.—**0**, Beck, R., 2.
——, diamantiferous, Brazil. — **1**, Draper, D.
——, eruptive, Trentino.—**2**, Cornelius, H. P., 8.
——, limestone-, Basses-Pyrénées. — **1**, Lapparent, J. de, 2.
——, tuff-, Sweden.—**0**, Lindroth, G. T.
——. *See also* Ore-breccia *&* Volcanic breccia.
Brechites.—**2**, Peyrot, A.
Breconshire.—**1**, Stamp, L. D., 7.
Breidden Hill (Montgomerysh.).—**1**, Nicholson, E. D.
Breitfeld (Fribourg).—**0**, Girardin, P.
Bremen area (Germany).—**1**, Wolff, W., 5 ; **2**, Wilckens, O., 4.
Brenk (Eifel).—**2**, Zaentini, W.
Brenta R. (Venetia).—**1**, Taramelli, T., 6.
Brenztal (Württemberg).—**1**, Musper, F.
Brescia (Lombardy).—**0**, Bonomini, C.
Breslau area (Silesia).—**1**, Dittrich, G. ; Tietze, O., 7, 9.
Brest (Finistère).—**1**, Collin, L.
Bretzwill (Basel).—**1**, Lehner, E.
Breunnerite.—**2**, Hammer, W.
Breusch valley (Vosges).—**0** & **1**, Buecking, H.
Brezoi conglomerates, Wallachia.—**2**, Popescu-Voiteşti, I., 7.
Briançonnais (Hautes-Alpes). — **0**, Termier, P., 2, 9.
Brick clays. *See* Clays.
Brickearths.—**1**, Boswell, P. G. H. **2**, Boswell, P. G. H., 3.
——, Guernsey.—**1**, Chilcott, B. G.
——, Moravia.—**0**, Toula, F., 4.
——, Suffolk.—**2**, Smith, R. A., 2.

Bricks.—**2**, Boswell, P. G. H., 3. *See also* Magnesite bricks, Sand-lime bricks, *&c.*

Bridge R. area (B.C.).—**2**, McCann, W. S.

Bridgewater (Tasmania).—**2**, Nye, P. B.

Bridport (Dorset).—**0**, Prior, E. S.

Briey (Meurthe-et-Moselle).—**0**, Cayeux, L., 3 ; **1**, Cayeux, L., 5.

Bright (S. Austr.).—**1**, Jack, R. L., 2.

Brightwell Heath (Suffolk).—**1**, Moir, J. R.

Brine, Great Britain.—**1**, Sherlock, R. L.

——, United States.—**0**, Phalen, W. C., 2.

——, Worcestershire.—**1**, Wills, L. J.

——, oil-fields.—**2**, Washburne, C. W.

——. *See also* Springs, saline.

Briones formation, California.—**1** & **2**, Trask, P. D.

Brioverian, Brittany.—**1**, Milon, Y. ; **2**, Kerforne, F. J., 3.

Brisbane area (Queensl.).—**2**, Ball, L. C., 1–3.

Brissoides.—**1**, Vogl, V., 6.

Brissopneustes.—**2**, Oppenheim, P., 11.

Bristol area.—**0**, Reynolds, S. H. ; **1**, Reynolds, S. H., 1–4 ; **2**, Reynolds, S. H.

British Association.—**2**, Charlesworth, A. ; Howarth, O. J. R.

British Borneo. *See* Borneo.

British Columbia.—**0**, Bretz, J. H. ; Cooke, H. C. ; Schofield, S. J., 3 ; **1**, Bancroft, M. F. ; Brock, R. W., 2 ; Camsell, C. ; Marshall, J. R.; Schofield, S. J. ; **2**, Burling, L. D. ; Dolmage, V. ; Hanson, G. ; Johnston, W. A., 3 ; Shepard, F. P., 2, 4 ; Uglow, W. L.

—— ——, delta. — **1**, Johnston, W. A., 1, 2 ; **2**, Johnston, W. A., 1, 4.

—— ——, gold.—**0**, Camsell, C. ; Thomlinson, W. ; **2**, Johnston, W. A., 5, 8 ; McCann, W. S.

—— ——, Mesozoic.—**0**, Schofield, S. J., 2 ; **1**, Dolmage, V., 2 ; McLearn, F. H., 2.

—— ——, mineral production.—**1** & **2**, British Columbia.

—— ——, mineral resources.—**0**, Ferrier, W. F. ; Graham, R. P. D. ; Keele, J. ; **1**, Keele, J. ; Reinecke, L. ; Stewart, J. S. ; **2**, Bancroft, M. F. ; Spence, H. S., 3.

—— ——, ore-deposits.—**0**, Bancroft, M. F. ; Camsell, C., 2 ; Dolmage, V., 1, 2 ; Ferrier, W. F., 2 ; Gwillim, J. C., 6 ; Mackenzie, G. C. ; O'Neill, J. J. ; Schofield, S. J. ; **1**, Cairnes, C. E. ; Dolmage, V. ; Mackenzie, J. D. ; Schofield, S. J., 2 ; **2**, Mackenzie, J. D.

—— ——, platinum.—**0**, Ferrier, W. F., 3 ; Mackenzie, G. C., 3 ; Thomlinson, W. ; Uglow, W. L., 4.

British Columbia, stratigraphy.—**1**, Johnston, W. A., 3 ; Mackenzie, J. D., 2 ; **2**, Burling, L. D., 2 ; Raymond, P. E., 3 ; Shepard, F. P., 1, 3.

—— ——. *See also* Vancouver I.

British Empire, geology.—**1**, Reed, F. R. C., 4.

—— ——, mineral production.—**1**, Imperial Mineral Resources Bureau 1, 2, 4–23 ; **2**, Merricks, F.

—— ——, mineral resources.—**0**, Cadman, J. ; Davies, G. M. ; **1**, Penzer, N. M. ; **2**, Anon., 29 ; Bone, W. A. ; Great Britain, 8.

British Guiana. *See* Guiana.

British Isles, coast-erosion.—**2**, Great Britain, 1, 2.

—— ——, mineral production.—**1**, Gibson, W. ; **2**, Great Britain, 3.

—— ——, palæogeography.—**1**, Ashton, W.

—— ——, Pliocene - Quaternary fauna.—**1**, Bell, Alfred.

—— ——, potash-felspar. — **0**, Boswell, P. G. H.

—— ——, Quaternary.—**0**, Brooks, C. E. P. ; Depéret, C., 2.

British Museum. *See* Museums.

Brittany.—**0**, Kerforne, F., 9, 10 ; Stouvenot, A. ; **1**, Milon, Y. ; **2**, Descoqs, A. ; Ferronière, G., 2 ; Nicou, P. *See also* Armorican Massif.

Broadfield Down (Somerset). — **2**, Wallis, F. S.

Bröckel (Hanover).—**1**, Stoller, J., 3.

Brockenhurst (Hants).—**1**, White, H. J. O., 2.

Brockley (London area).—**2**, Bromehead, C. E. N., 3.

Brockville (Ont.).—**2**, Wright, J. F.

Broken Hill (N.S.W.).—**0**, Smith, G. ; **2**, Andrews, E. C., 1, 2.

Broken Hill (N. Rhod.).—**0**, Buttgenbach, H., 4 ; **2**, Guillarmod, J. J., 2.

Broken R. area (N.Z.).—**0**, Speight, R., 3.

Bromberg. *See* Bydgoszcz.

Bromley (Kent).—**2**, Bromehead, C. E. N., 3.

'Brontidi.'—**1**, Heritsch, F., 4.

Brørup (Denmark).—**1**, Jessen, A., 2.

Brouzet-les-Alais (Gard).—**0**, Brun, P. de.

Brown coal.—**0**, Bærtling, R., 2 ; Herrmann, F. ; **1**, Imperial Mineral Resources Bureau, 15 ; **2**, Bone, W. A. ; Sachs, A., 4 ; Weithofer, K. A., 2.

—— ——, Asia Minor. — **2**, Wolff, W.

—— ——, Austria – Bohemia.—**1**, Hœfer, H. v., 2.

—— ——, Dalmatia.—**2**, Kerner, F. v., 2.

Brown coal, Germany.—**0**, Dittus, W.; **1**, Blanckenhorn, M.; Dannenberg, A.; Friedensburg, F.; Kræusel, R., 2, 3; Linstow, O. v., 6; Menzel, H., 3; Scupin, H., 1, 2; Wahnschaffe, F., 2; **2**, Gagel, C.; Haupt, O.; Hess von Wichdorff, H.

—— ——, Java.—**1**, Ziegler, K. G. J.

—— ——, Romania.—**1**, Bányai, J.; **2**, Danaila, N.

—— ——, S. Australia.—**2**, Broughton, A. C.

—— ——, Switzerland.—**0**, Schmidt, C., 1, 2.

—— ——, Victoria.—**0** & **2**, Herman, H., 3.

—— ——. *See also* Lignite.

Brown earths.—**2**, Lang, R., 1, 2.

Bruchomyiinæ.—**1**, Edwards, F. W., 2.

Brucite.—**1**, Ehringhaus, A.; **2**, Grill, E.

Bruck (Styria).—**2**, Stiny, J., 2, 4.

Brufjellet (Norway).—**0**, Danielsen, D., 2.

Brugnatellite.—**0**, Foshag, W. F., 6; **2**, Foshag, W. F.

Brunswick (Germany).—**1**, Grupe, O.; Harbort, E., 2–4; **2**, Uhlig, J., 2.

Brusvily (Côtes-du-Nord).—**1**, Bézier, T., 3, 4.

Bruxellian, Brabant.—**1**, Halet, F., 2.

——, Nord.—**2**, Leriche, M., 7.

Bryozoa.—**0**, Canu, F., 1, 2; **1**, Waters, A. W.; **2**, Bassler, R. S.; Grabau, A. W., 3.

——, Carboniferous.—**0**, Butts, C., 1, 2; Hinds, H., 2; Holtedahl, O., 3, 4; Ulrich, E. O.; **1**, Benson, W. N., 2; Chapman, F., 2; **2**, Morningstar, H.

——, Cretaceous.—**0**, Clark, W. B., 2; Davey, E. C.; Gaster, C. T. A.; **1**, Canu, F., 3, 4; Lang, W. D.; **2**, Cottreau, J.; Lang, W. D.

——, Culm.—**1**, Hueffner, E.

——, Devonian.—**1**, Dienst, P.; Salée, A., 3; **2**, Mansuy, H., 3, 10; Reed, F. R. C., 2.

——, Eocene.—**0**, Canu, F., 4; **1**, Canu, F., 2;

——, Jurassic.—**1**, Newton, R. B.

——, Miocene.—**0**, Vaughan, T. W., 5; **1**, Canu, F., 4; **2**, Duvergier, J.

——, Oligocene.—**0**, Canu, F., 4; Vaughan, T. W., 5.

——, Ordovician.—**0**, Bassler, R. S.; Butts, C.; Holtedahl, O., 12; Miller, A. M.; Nettelroth, H.; Reed, F. R. C.; Shaw, E. W., 5; **1**, Bekker, H.; **2**, Vinassa de Regny, P.; Wilson, A. E.

——, Palæozoic.—**0**, Holtedahl, O., 6; Mansuy, H., 3, 5.

——, Permian.—**2**, Hummel, K.

——, Permo-Carboniferous.—**0**, Laseron, C. F.; **2**, Colani, M.; Mansuy, H., 5.

Bryozoa, Pleistocene.—**1**, Canu, F., 4.

——, Pliocene.—**1**, Canu, F., 4.

——, Silurian.—**0**, Butts, C.; Chapman, F., 5, 6.

——, Tertiary.—**0**, Canu, F., 3; **1**, Canu, F.

——, Trias.—**1**, Vinassa de Regny, P.

Bryozoa-limestone, Bessarabia. — **2**, Simionescu, I.

Bubble-prints.—**2**, Twenhofel, W. H., 2.

Bucegi conglomerates, Wallachia.—**2**, Popescu-Voiteşti, I., 7.

Buchan (Aberdeensh.).—**1**, Flett, J. S., 2.

Buchau (Bohemia).—**2**, Folgner, R.

Büchenberg (Harz).—**1**, Erdmannsdœrffer, O. H.

Buchensteiner beds, Alps (S.).—**2**, Tornquist, A.

Buchheide (Pomerania).—**1**, Linstow, O. v., 3.

Bückeburg (Prussia).—**0**, Linstow, O. v., 2.

Buckenham Tofts (Norfolk).—**1**, Layard, N. F.

Buckinghamshire.—**0**, Booth, W. H.; Sherlock R. L., 3; **1**, Hollis, E.; Neaverson, E., 2; Whitaker, W., 2; **2**, Barrow, G., 2; Sherlock, R. L., 4; Treacher, Ll. *See also* Chiltern Hills.

Buckland Common (Bucks).—**2**, Barrow, G., 2.

Budapest museum.—**2**, Hungary.

Buenos Aires (Argentina).—**0**, Witte, L.; **1**, Ameghino, F., 4; Bonarelli, G.; Frenguelli, J., 2; Roth, S.; **2**, Frenguelli, G., 4.

—— ——, prehistory.—**1**, Ameghino, F., 1, 3, 7, 8, 12.

—— ——, sea-bottom off.—**1**, Kantor, M., 2.

Bug R. area (Poland).—**2**, Wołłosowicz, S.

Bühl (Hesse).—**1**, Eitel, W., 5; **2**, Eitel, W., 3.

Building materials, Argentina.—**0**, Cuomo, M.

—— ——, I. of Wight.—**1**, White, H. J. O.

—— ——, Ontario-Quebec. — **2**, Keele, J., 2.

Building-stones.—**2**, Fox, C. S., 2; Herrmann, O., 2.

—— ——, Bohemia. — **0**, Želízko, J. V., 8.

—— ——, New Zealand. — **2**, Marwick, J.; Morgan, P. G., 6.

—— ——, Ontario.—**0**, Cole, L. H., 2.

—— ——, Piedmont.—**0**, Sacco, F., 2.

—— ——, Sweden.—**0**, Anon., 39.

—— ——, Switzerland.—**0**, Niggli, P.

—— ——, United States. — **0**, Bowles, O.; Morse, W. C.; Bownocker, J. A.

Building-stones, used in London.—**1** & **2**, Elsden, J. V.
——. *See also* Ornamental stones.
Buix (Berne).—**1**, Werveke, L. v.
Bükk Mts. (Hungary).—**1**, Schréter, Z., 1, 3, 4.
Bukowina (Romania). — **0**, Groszpietsch, O.; **1**, Mogilnicki, R. v.; **2**, Athanasiu, S. C., 2; Pascu, R., 4.
Bulawayo (S. Rhod.).—**2**, Macgregor, A. M.
Bulgaria.—**0**, Dœlter, C.; **1**, Schmid, G.; **2**, Macovei, G., 3; Niculescu, C.; Weiss-Bartenstein, W. K. *See also* Macedonia *&* Rhodope Mts. area.
Bull Mountain (Mont.).—**0**, Woolsey, L. H.
Bulla (Vict.).—**1**, James, A. V. G.
Buller (N.Z.).—**0**, Morgan, P. G., 4.
Bullinus.—**0**, Annandale, N.
'Bumps.' *See* Rock-bursts.
Bunaia.—**1**, Clarke, J. M., 3.
Bundanba (Queensl.).—**0**, Cameron, W. E.
Bündner schists, Tyrol.—**0**, Hammer, W., 5.
Bunodes.—**1**, Clarke, J. M., 3.
Bunolophodon.—**2**, Cooper, C. F.
Bunter.—**2**, Frentzen, K.
——, Europe (N.-Central).—**1**, Linstow, O. v.
——, France (N.E.).—**0**, Buecking, H.; Werveke, L. v., 10; **2**, Kraus, Ernst, 2.
——, Germany.—**1**, Assmann, P.; Blanckenhorn, M., 3; Bœhne, E.; Dienemann, W.; Grupe, O., 2; Heeger, W.; Kœnen, A. v.; Ramdohr, P.; Scheibe, R.; Seyfried, E. v.; Weiss, G.; **2**, Vogel von Falckenstein, K.; Wuest, E.
——, Liverpool area.—**0**, Jones, T. A., 2.
Bunyoro (Uganda).—**1**, Simmons, W. C., 2.
Burdigalian, Majorca.—**1**, Depéret, C.
Burgdorf (Hanover).—**1**, Stoller, J., 4.
Burgsteinfurt (Westphalia). — **1**, Bœhm, J., 6.
Burgsvik (Gotland).—**2**, Hede, J. E.
Burgundy (France).—**0**, Cayeux, L., 2; **2**, Chaput, E.
Burgwaldniel (Rheinland).—**1**, Zimmermann, E., II, 4, 5.
Bur-Hacaba (Ital. Somaliland).—**2**, Neviani, A.; Portis, A.
Buried hills.—**2**, Powers, S., 2.
Burketown (Queensl.).—**0**, Dunstan, B.
Burladingen (Hohenzollern). — **1**, Schmierer, T., 4.
Burma, mineral resources.—**0**, Brown, J. C., 4, 5; Campbell, J. M.; Hallowes, K. A. K., 3; **1**, Heron, A. M., 1, 2; **2**, Penzer, N. M.
Burma, Tertiary.—**0**, Cotter, G. de P., 2; **1**, Vredenburg, E., 2; **2**, Cotter, G. de P.; Stamp, L. D., 6.
——. *See also* Minbu, Shan States, *&c.*
Burnotian, Belgium.—**2**, Asselberghs, E., 2.
'Burn-out' area (Saskatch.).— **0**, Stansfield, J., 2.
Burntwood R. area (Manit.).—**1**, Alcock, F. J., 2.
Burr Creek area (S. Austr.).—**1**, Winton, L. J.
Burscheid (Rheinland).—**1**, Fliegel, G., 2.
Buru I. (Moluccas).—**2**, Wanner, J., 3.
Busselton (W. Austr.).—**1**, Maitland, A. G., 2.
Bustamite.—**2**, Larsen, E. S., 2; Lewis, J. V., 2.
Bydgoszcz (Poland).—**1**, Assmann, P., 3; Beyschlag, F.; Cramer, R.; Jentzsch, A., 2; Korn, J., 1, 2, 6; Schlunck, J., 4.
Byram calcareous marl, Mississippi.—**2**, Cooke, C. W., 2.
Byron Bay (N.S.W.).—**2**, Morrison, M., 3.

C

Cabrera I. (Balearic Is.).—**0**, Gomez-Llucea, F.
Caceres (Spain).—**0**, Dœrpinghaus, W. T.
Cádiz (Spain).—**1**, Gavala, J., 2.
Cadmium.—**0**, United States, 4, 6, 8, 9; **1**, United States, 10; **2**, United States, 12.
—— minerals.—**0**, Emmons, W. H.
Cadomoceras.—**0**, Coëmme, S.
Caen (Calvados).—**0**, Gidon, F.; **2**, Azam, A.
Cænopus.—**1**, Troxell, E. L., 5.
Cagnano Varano (Puglia).—**1**, Crema, C.
Caiqua-bed, Rheinland.—**2**, Dœring, A.
Caithness.—**0**, Flett, J. S.; Lee, G. W., 3; Sutherland, A.
Calabria (Italy).—**1**, Crema, C., 3; Stefano, G. de, 2, 5.
Calamine.—**0**, Buttgenbach, H., 2, 4.
Calamites.—**1**, Yabe, H.
Calatoloides.—**2**, Berry, E. W., 8.
Calcareous sediments. *See* Sediments.
—— tuff. *See* Tuffs.
Calceola.—**2**, Richter, R., 2; Scalia, S.
Calceola sandalina beds, Belgium.—**1**, Maillieux, E.
Calciferous Sandstone series, Lanarkshire.—**1**, Hinxman, L. W.
Calcination volcanoes.—**0**, Hobbs, W. H.
Calciphyre, Piedmont.—**1**, Tacconi, E.
Calcisphæræ.—**2**, Chapman, F.

Calcite.—**0**, Buttgenbach, H., 2, 5; Shannon, E. V., 12; Spencer, L. J.; Whitlock, H. P.; **1**, Artini, E.; Franzenau, A.; Mieleitner, K., 4; Schuster, E.; Trœdsson, G. T.; **2**, Buttgenbach, H., 4; Shannon, E. V., 5; Weber, L.

——, Norway.—**0**, Vogt, T., 5; **1**, Bugge, C.

——, in cave, New York.—**0**, Gardner, H. F.; **1**, Clarke, N. T.

——, crystal-structure.—**0**, Boone, W. T.; Wyckoff, R. W. G.; **2**, Beckenkamp, J., 2; Johnsen, A., 7.

——, mineralization of fossils &.—**0**, Meunier, S.; Schaffer, F. X.

——. *See also* Calcium carbonate, Iceland spar, *&c.*

—— -agate.—**0**, Reis, O. M., 1, 3.

Calcium carbonate.—**0**, Cayeux, L.; **1**, Leitmeier, H.; Spangenberg, K., 3; **2**, Lang, R., 4; Reis, O. M. *See also* Lublinite.

—— hydrovanadates.—**1**, Hillebrand, W. F.

Calc-silicate-rocks, Oberpfalz. — **0**, Laubmann, H.

—— -sinter, Bohemia.—**0**, Želízko, J. V., 4, 8.

Calcutt (Wilts).—**2**, Richardson, L., 5.

Caldarola (Marche).—**2**, Agamennone, G., 2.

Caldbeck Fells (Cumberland).—**0**, Melmore, S.

Caldon Low (Staffs).—**0**, Barke, F.; Jackson, J. W., 2.

Caledonian mountains.—**2**, Frœdin, G., 2.

—— tectonics, Armorican Massif.—**2**, Ferronnière, G., 3.

—— ——, Norway.—**2**, Goldschmidt, V. M., 2.

California (U.S.A.).—**0**, Eakle, A. S., 2; Ellis, A. J., 2; English, W. A.; Gilbert, G. K.; Kew, W. S. W.; Knopf, A., 4; Louderback, G. D.; Yermoloff, N.; **2**, Clark, C. W.; Diller, J. S.; Rogers, A. F., 3, 4.

—— (——), earthquakes.—**0** & **1**, Taber, S., 2; **2**, Carnegie Institution.

—— (——), ore-deposits. — **0**, Jones, E. L., *fil*, 3; Knopf, A., 2; Louderback, G. D., 2; United States, 4–6, 8; **1**, Behre, C. H., *fil*; Foshag, W. F., 5; United States; 8; **2**, Diller, J. S., 2; Hess, F. L.; Hudson, F. S.; McCann, W. S.; Simmersbach, B., 8; United States, 10.

—— (——), petroleum.—**0**, Rogers, G. S., 3; **1**, English, W. A.; Rogers, G. S.; **2**, Palmer, C.; Rademacher, R.

—— (——), tectonics.—**0**, Buwalda, J. P.; Willis, B., 1, 2; **1**, Lawson, A. C.; Louderback, G. D.; **2**, Brown, J. S., 2.

California (U.S.A.), Tertiary. — **0**, Clark, B. L., 1, 2; Pack, R. W.; Smith, J. P.; Stock, C., 3; **1**, Chaney, R. W.; Clark, B. L., 1, 2; Trask, P. D.; **2**, Clark, B. L.; Dickerson, R. E., 2; Trask, P. D.

—— (——), water.—**0**, Brown, J. S.; Clark, W. O.; Grover, N. C., 1–4; McGlashan, H. D.; Thompson, D. G.; Waring, G. A., 3, 4; **1**, Ebert, F. C.; Grover, N. C., 4, 8; McGlashan, H. D.; **2**, Grover, N. C., 2; Thompson, D. G.

California, Gulf of.—**0**, Paredes, T.

Calitri (Campania).—**1**, Cavasino, A., 3.

Callao (Venezuela).—**0**, Duparc, L., 2.

Callixylon.—**2**, Hylander, C. J.

Callovian, Argentina-Chile. — **1**, Felsch, J., 2; **2**, Stehn, E.

——, France.—**1**, Piroutet, M., 2; **2**, Lissajous, M.

Calomel.—**1**, Steinmetz, H., 2.

Calvados (France).—**0**, Dollfus, G. F., 17; Gidon, F.; **1**, Mercier, L.; **2**, Azam, A.

Calymene.—**1**, Gardiner, C. I.; **2**, Walcott, C. D., 2.

Calymene tristani beds, Spain. — **0**, Born, A.

Calyptoblastea.—**0**, Chapman, F., 7.

Cam valley (Essex).—**2**, Morris, G.

Camarasaurus.—**0**, Gregory, W. K., 2; Osborn, H. F., 9–11; **1**, Osborn, H. F., 6.

Camaret (Finistère).—**2**, Kerforne, F. J., 7.

Camarocrinus.—**0**, Springer, F.

Cambrésis (Nord).—**1**, Leriche, M., 2.

Cambrian, Anglesey.—**0**, Greenly, E.

——, Belgium.—**0**, Dorlodot, L. de; **1**, Asselberghs, E., 3; Holzapfel, E.; **2**, Leriche, M., 9.

——, Bohemia.—**0**, Kettner, R., 4; **2**, Kettner, R., 5; Kodym, O.

——, Canada (W.).—**2**, Burling, L. D., 2, 3.

——, China.—**0**, Mansuy, H.

——, Esthonia.—**2**, Pahlen, A. v. d.

——, Finland.—**2**, Metzger, A. A. T.

——, France.—**0**, Buecking, H.; **1**, Kerforne, F., 5, 7; Milon, Y.; **2**, Kerforne, F. J., 3.

——, French Indo-China.—**0**, Mansuy, H.

——, Great Britain.—**0**, Howell, B. F.

——, Manchuria.—**2**, Murakami, H.

——, Merioneth.—**0**, Cox, A. H., 4; **1**, Cox, A. H.

——, Newfoundland.—**0**, Howell, B. F.

——, N. America (W.).—**2**, Raymond, P. E., 3.

——, Norway.—**0**, Vogt, T., 4; **2**, Brœgger, W. C.; Holtedahl, O., 6; Kiær, J., 5.

——, Nova Zembla.—**2**, Holtedahl, O., 5.

——, Poland.—**1**, Samsonowicz, J.

Cambrian, Sardinia.—**0**, Novarese, V.; Taricco, M.
——, Shropshire.—**0** & **1**, Cobbold, E. S.
——, S. Australia.—**0**, Howchin, W., 1, 4, 7.
——, Spain.—**0**, Palacios, P., 2; **2**, Sampelayo, P. H.
——, Sweden.—**2**, Asklund, B., 2; Westergård, A. H.; Wiman, C.
——, Transjordania.—**2**, Dienemann, W.
——, United States.—**0**, Bassler, R. S.; Chadwick, G. H., 6; Miller, W. J., 2; Rothpletz, A.; **1**, Olmstead, S. G.; **2**, Clark, C. W.; Keith, A.
——, Wales (N.).—**0**, Strahan, A., 3.
——, bibliography.—**0**, Resser, C. E.
——, boulders, Holstein.—**0**, Gagel, C., 5.
——, glaciation, Australia.—**1**, Howchin, W., 9.
——, limestones, Antarctica.—**0**, Skeats, E. W., 6.
——, rocks dredged from Weddell Sea.—**2**, Gordon, W. T.
——. *See also* Salmian, Siluro-Cambrian, *&c.*
Cambridge area.—**0**, Chandler, M. E. J.; Marr, J. E.
Cambridgeshire.—**1**, Chandler, M. E. J.; **1**, Whealler, J. E. A.; **2**, Whitaker, W., 2.
Cambro-Ordovician, Ellesmere Land.—**0**, Holtedahl, O., 5.
——-——, Greenland.—**1** & **2**, Koch, L.
——-——, New York.—**2**, Berkey, C. P.
——-Silurian, Norway.—**1**, Carstens, C. W.; **2**, Goldschmidt, V. M., 10. *See also* Siluro-Cambrian.
Camelidæ.—**1**, Lull, R. S., 2.
Cameroon Mt. (Nigeria).—**1**, Mesch, D.; **2**, Ruxton, F. H.
Camino (Piedmont).—**1**, Lupano, G.
Camooweal (Queensl.).—**0**, Dunstan, B.
Camp Sherman (Ohio).—**2**, Hyde, J. E.
Campania (Italy).—**0**, Biasutti, R.; Panichi, U.; Washington, H. S., 3; **1**, Bellini, R., 1, 2; Grzybowski, J.; **2**, Craveri, M.
—— (——), Cretaceous.—**0**, Parona, C. F.; **1**, Chelussi, I.
—— (——), earthquakes.—**1**, Cavasino, A., 3; **2**, Fiore, O. de.
—— (——), volcanism.—**0**, Bellini, R.; Sabatini, V.; Sauer, A.; **1**, Papp, K. v., 2; **2**, Fiore, O. de, 2; Signore, F.
—— (——), water-analyses.—**2**, Comanducci, E.; Piutti, A.
—— (——). *See also* Vesuvius.
Campbell's Creek (Vict.).—**2**, Whitelaw, H. S.
Campi Flegrei (Campania).—**0**, Sauer, A.; **2**, Fiore, O. de, 1, 2.
Campiglia Marittima (Tuscany).—**1**, Merciai, G., 2.
Câmpina (Wallachia).—**2**, Protescu, O., 1, 2.
Campine (Belgium).—**1**, Firket, V.; **2**, Fourmarier, P., 9; Halet, F., 1, 3.
Camptonite, Saxony.—**1**, Beger, P. J.
Camsellite.—**2**, Ellsworth, H. V., 2.
Canada.—**2**, Canada, 2; Coleman, A. P., 5.
——, bibliography.—**0**, Nickles, J. M., 1–3.
——, coal.—**0**, Canada, 3; **1**, Canada, 5; **2**, Canada.
——, geological survey.—**1**, Canada, 7.
——, mineral production.—**0**, Canada 1, 2, 6; **1**, Canada, 3, 4, 6.
——, mineral resources.—**0**, Canada, 5, 7; McLennan, J. C., 2; Spence, H. S.; **1**, Canada; Dowling, D. B., 4; Spence, H. S., 1, 2; **2**, Anrep, A., 3; Canada, 3; Simmersbach, B., 4; Spence, H. S., 2.
——, ore-deposits.—**0**, Canada, 4; Mackenzie, G. C., 2; **1**, Canada, 2; **2**, Great Britain, 22; Robinson, A. H. A.
——, Pre-Cambrian.—**1**, Quirke, T. T.; Steidtmann, E.; **2**, Miller, W. G.
—— (E.).—**0**, Matthew, G. F.; **1**, Coleman, A. P.; Tilmann, N.
—— (——), mineral resources.—**0**, Cole, L. H.; Hayes, A. O.; Robinson, A. H. A.; **2**, Fréchette, H.
—— (N.), Athabaska series.—**0**, Alcock, F. J.
—— (N.E.), Palæozoic.—**0**, Savage, T. E., 2.
—— (W.).—**2**, Burling, L. D., 3; Cole, L. H.
—— (——), petroleum.—**1**, Dowling, D. B.; Ness, J.
Canada balsam.—**2**, Lehmann, E.; Schlossmacher, K., 2; Wuelfing, E. A.
Canadian Shield.—**0**, Suess, F. E.
Canals, Auckland.—**2**, New Zealand, 9.
Canary Is.—**2**, Gagel, C., 2; Smith, W. C.
Canavese (Piedmont).—**0**, Spitz, A., 1, 8; **1**, Novarese, V.
Canavese syncline, Alps (S.E.).—**1**, Furlani, M.
Canberra (Australia).—**1**, Taylor, G.
Cancellariidæ.—**2**, Vredenburg, E. W., 2.
Cancrinite.—**2**, Brauns, R., 14.
Candoglia (Piedmont).—**1**, Tacconi, E.
Cane (Ont.).—**2**, Burrows, A. G.
Caneyella.—**2**, Weigelt, J.

Canidæ.—**1**, Del Vecchio, C., 2 ; **2**, Matthew, W. D. ; Thorpe, M. R., 2, 5.

Canigou (Pyrénées-Orientales). — **1**, Mengel, O., 3.

Cannel coal, Great Britain.—**0**, Strahan, A., 4.

—— ——, United States.—**0**, Ashley, G. H., 3 ; **1**, Ashley, G. H.

Canning R. area (Alaska).—**0**, Leffingwell, E. de K.

Cannonball formation, N. & S. Dakota.—**0**, Stanton, T. W., 2.

Cañon, Fraser R.—**1**, Camsell, C.

Cantal (France).—**0**, Boisse de Black, Y. ; Dollfus, G. F., 22 ; Rolland, A. ; **1**, Boisse de Black, Y., 1–4 ; Glangeaud, P., 5, 6 ; Marty, P., 2 ; **2**, Boisse de Black, Y., 1–3 ; Glangeaud, P., 3. *See also* Margeride Mts.

Canterbury (N.Z.).—**0**, Speight, R., 1, 3 ; Wild, L. J. ; **1**, Henderson, J., 3 ; Morgan, P. G. ; **2**, Speight, R., 1, 2.

—— (——), rivers.—**2**, New Zealand, 16, 18–21.

—— (——), stratigraphy. — **0**, Speight, R., 2 ; Thomson, J. A., 5 ; Woods, H.

—— (——). *See also* Christchurch observatory.

Cantley (Queb.).—**0**, Stansfield, J.

Canton (N.Y.).—**0**, Chadwick, G. H., 6.

Canton R. (Kwangtung).—**0**, Wilckens, O., 7.

Canyon Diablo (Ariz.).—**1**, Meunier, S., 2.

Cap Blanc Nez. *See* Blanc Nez.

Cap-Breton. *See* 'Gouf de Cap-Breton.'

Cape Breton I. (N.S.).—**1**, Bell, W. A., 2.

Cape Province (S. Afr.).—**0**, Caink, T. G. ; Du Toit, A. L. ; **1**, Du Toit, A. L. ; **2**, Parry, J.

—— —— (——), limestones. — **0** & **1**, Wybergh, W.

—— —— (——), meteorites.—**0**, Cohen, E. ; **1**, Prior, G. T., 2.

—— —— (——), mineral resources. —**0**, Anon., 18 ; **2**, Krige, A. V. ; Webber, H. O'K.

—— —— (——), prehistory. — **1**, Hewitt, J. ; Jones, N. ; **2**, Hewitt, J.

—— —— (——). *See also* Griqualand East & Namaqualand.

Capel Curig (Carnarvonsh.).—**2**, Williams, H.

Capitosaurus.—**2**, Broili, F., 2.

Capra.—**1**, Stefano, G. de, 4.

Capreite.—**2**, Bellini, R.

Capreolus.—**1**, Stefano, G. de, 4 ; **2**, Athanasiu, S. C., 4, 5, 8.

Capri I. (Campania).—**0**, Bellini, R. ; Parona, C. F. ; **1**, Bellini, R., 1, 2.

Carabinier fault, Belgium.—**0**, Fourmarier, P., 6.

Caradocian, Brabant.—**1**, Leriche, M., 3.

Carbon.—**0**, Hackl, O., 6 ; **1**, Fulda, E. *See also* Charcoal.

Carbon compounds. — **2**, Bragg, W. H.

Carbon dioxide.—**1**, Wells, R. C. ; **2**, Altfeld, E. ; Hentze, E. ; Petrie, W. M. F. ; Scharizer, R., 2. *See also* Carbonic acid.

Carbon ratios, coal & oil.—**0**, Fuller, M. L. ; Lloyd, S. J. ; Price, W. A., 2 ; **2**, Reger, D. B.

Carbonaceous substances.—**2**, Holden, E. F., 3 ; Reusch, H., 5.

Carbonate minerals. *See* Minerals.

—— rocks.—**0**, Hillebrand, W. F.

Carbonates.—**0**, Wyckoff, R. W. G. ; **1**, Leitmeier, H. ; **2**, Redlich, K. A., 3.

Carbonic acid.—**2**, Hæhnel, O. ; Nacken, R., 3 ; Ramann, E.

Carboniferous.—**1**, Sussmilch, C. A. ; **2**, Watts, W. W.

——, Anglesey.—**0**, Greenly, E.

——, Asia Minor.—**0**, Fliegel, G.

——, Austria.—**1**, Spengler, E., 2 ; **2**, Holdhaus, K., 2.

——, Ayrshire.—**0**, Tyrrell, G. W.

——, Balkan area.—**2**, Murgoci, G., 9.

——, Belgium.—**1**, Fourmarier, P., 1, 2 ; Lohest, M. ; Renier, A. ; Stainier, X. ; **2**, Kaisin, F., 2 ; Salée, A. ; Stamp, L. D., 3, 7.

——, Bohemia.—**1**, Hœfer, H. v., 2.

——, Bristol area.—**1**, Reynolds, S. H.

——, British Columbia.—**1**, Cairnes, C. E.

——, Canada (E.).—**0**, Hayes, A. O.

——, Cardiff area.—**0**, Cox, A. H., 1, 2.

——, Carnic Alps.—**2**, Gortani, M.

——, Cheshire. — **0**, Greenwood, H. W.

——, Colorado plateau.—**0**, Dake, C. L., 2

——, Cumberland.—**1** & **2**, Earle, K. W.

——, Denbighshire.—**0**, Acton, T. A. ; Wills, L. J., 1, 2.

——, Derbyshire.—**0** & **1**, Sargent, H. C.

——, Dublin.—**1**, Smyth, L. B.

——, England.—**0**, Lamplugh, G. W., 2 ; Strahan, A., 3.

——, —— (N.). — **1**, Bisat, W. S., 4.

——, Europe (Central).—**2**, Born, A., 2 ; Petrascheck, W., 3.

——, Fife.—**0**, Balsillie, D., 1–3.

——, Flintshire.—**0**, Acton, T. A.

——, France.—**0**, Launay, L. de ; Wohlfarth, K. ; **1**, Carpentier, A. ; Milon, Y. ; Zurcher, P. ; **2**, Kerforne, F. J., 3 ; Péneau, J., 5.

——, French Indo-China.—**0**, Dussault, —.

Carboniferous, Germany.—**0**, Behr, F. M.; Krusch, P., 2; **1**, Ahlburg, J., 4; Bærtling, R.; Brandes, T.; Gœbel, F.; Henke, W.; Quitzow, W.; Roth, U.; Vogel, H., 2; **2**, Bubnoff, S. v.
——, Humber basin.—**1**, Newton, C. B.
——, Illinois.—**0**, Cady, G. H.; Hinds, H.; Weller, S.; **2**, Savage, T. E., 1, 2; Shaw, E. W.
——, Iowa.—**2**, Arey, M. F., 1, 2; Gow, J. E.; Tilton, J. L., 2, 3.
——, Ireland (N.E.).—**0**, Wright, W. B.
——, Japan.—**2**, Hayasaki, I., 3.
——, Jersey.—**1**, Plymen, G. H., 2.
——, Kentucky.—**0**, Butts, C.; Crandall, A. R.; Crump, M. H.; Glenn, L. C., 2; Jillson, W. R., 5, 6; Miller, A. M., 2; Morse, W. C.; Shaw, E. W., 4; Ulrich, E. O.; **1**, Jillson, W. R., 2, 5–7, 10, 13, 14, 21, 23–25; **2**, Jillson, W. R., 3, 7; St. Clair, S., 2; Weller, S., 1, 2.
——, Lancashire.—**0**, Jones, T. A., 5.
——, Linlithgowshire.—**0**, Lee, G. W., 2; **2**, Cadell, H. M.
——, Lothians.—**2**, Berg, G.
——, Maine.—**0**, Katz, F. J.; **2**, Wandke, A.
——, Mid-Continent area.—**0**, Bosworth, T. O.
——, Midlands.—**0**, Greenwood, H. W.; Sibly, T. F.; **1**, Ridsdale, H. H.
——, Missouri.—**0**, Wilson, M. E.
——, New Hampshire.—**0**, Katz, F. J.; **2**, Wandke, A.
——, New Mexico.—**0**, Bœse, E.; Lee, W. T., 3; **1**, Gruner, J. W.
——, New South Wales.—**0**, Benson, W. N., 2; **1**, Benson, W. N., 2; Osborne, G. D., 2; Sussmilch, C. A.; **2**, Osborne, G. D.
——, Newfoundland.—**2**, Landell-Mills, T.
——, Nova Scotia.—**1**, Bell, W. A., 2; Hayes, A. O.
——, Ohio.—**1**, Stout, W., 1, 2; **2**, Conrey, G. W.; Hyde, J. E.
——, Oklahoma.—**0**, Heald, K. C.; **1**, Honess, C. W.
——, Pennsylvania.—**0**, Swartz, C. K.
——, Peru.—**0**, Douglas, J. A.; **2**, Berry, E. W., 7.
——, Portugal.—**0**, Pruvost, P.; Souza, P. de.
——, Russia.—**0**, Lebedev, N. J.; **1**, Simmersbach, B.
——, Scotland.—**0**, Cadell, H. M., 2; Clough, C. T.; Hinxman, L. W.; Macgregor, M., 2; Tyrrell, G. W., 2; **1**, Cadell, H. M.
——, Somerset.—**1**, Greenly, E.
——, S. Africa.—**2**, Du Toit, A. L., 2.
——, Spain.—**1**, Anthoine, R.; Carbonell, A.; Pérez-Cossio, L.
Carboniferous, Spitsbergen.—**0**, Holtedahl, O., 3, 4; **1**, Cadell, H. M., 2.
——, Staffordshire.—**0**, Jackson, J. W., 2; **1**, Alkins, W. E.
——, Switzerland.—**0**, Lotze, R. Oulianov, N.; **1**, Morgenthaler, H., 1, 2; Oulianov, N.
——, Texas.—**0**, Hager, D.
——, United States.—**0**, Hinds, H., 3; Purdue, A. H.
——, —— (N.E.).—**0**, Emerson, B. K.; Perkins, E. H.
——, Utah.—**1**, Olmstead, S. G.
——, Wales.—**0**, Strahan, A., 3.
——, —— (N.).—**1**, Smith, B.
——, W. Virginia.—**0**, Scheffel, E. R.
——, Yorkshire.—**0**, Bisat, W. S., 2; Butterfield, J. A., 1, 2; **1**, Hobson, B.; **2**, Garwood, E. J., 1, 2; Gilligan, A.
——, mineral resources, Great Britain.—**1**, Greenwood, H. W.; Howe, J. A.; **2**, Great Britain, 20.
——. *See also* Hercynian, Mississippian, *&c.*
Carboniferous Limestone, Belgium.—**0**, Anthoine, R., 2; Cornet, J., 3; Fourmarier, P., 10; Lohest, M., 4; **1**, Fourmarier, P., 12; **2**, Camerman, M. C.; Demanet, F.; Stainier, X., 1, 2.
—— ——, Bristol area.—**0**, Reynolds S. H.; **1**, Reynolds, S. H., 2, 3; **2**, Reynolds, S. H.
—— ——, Cardiff area.—**0**, Sibly, T. F., 2.
—— ——, Cumberland.—**1**, Smith, B., 2; **2**, Edmonds, C.
—— ——, Derbyshire.—**2**, Jackson, J. W., 1, 2.
—— ——, Fife.—**0**, Wright, J.
—— ——, France.—**1**, Lapparent, J. de, 4; **2**, Delépine, G.
—— ——, Gloucestershire.—**1**, Bolton, E.
—— ——, Lanarkshire.—**1**, Hinxman, L. W.
—— ——, Lancashire.—**0**, Smith, B.
—— ——, Midlands.—**2**, Parsons, L. M.
—— ——, Monmouthshire. — **1**, Dixon, E. E. L., 2.
—— ——, Pembrokeshire. — **1**, Dixon, E. E. L.
—— ——, Somerset.—**2**, Wallis, F. S.
—— ——, Staffordshire. — **1** & **2**, King, W. W., 2.
—— ——, Wales (N.). — **1**, Jones, T. A.
—— ——, fauna.—**0**, Milton, J. H., 1, 2.
Carbonization.—**1**, Hœfer, H. v., 2; **2**, Illingworth, S. R., 2.
Carcaro, Germany.—**2**, Fromme, J., 1, 3; Uhlig, J., 2.
Carcharodon.—**1**, Ishiwara, Y.; **2**, Frenguelli, G., 3; Jordan, D. S., 2.
Carcineretes.—**2**, Withers, T. H., 5.

Cardiff area.—**0**, Cox, A. H., 1, 2 ; Sibly, T. F., 2 ; Trueman, A. E., 2.
Cardiganshire.—**2**, Jones, O. T.
Cardioceras.—**0**, Reeside, J. B. *fil.*, 2 ; Salfeld, H.
Cardioceratidæ.—**0**, Reeside, J. B. *fil.*, 2.
Cariboo (B.C.).—**2**, Johnston, W. A., 8.
Carinthia (Austria).—**0**, Spitz, A., 7 ; **1**, Furlani, M. ; Hackl, O. ; Hœfer, H. v., 2 ; Pia, J. ; Tornquist, A., 2 ; **2**, Holdhaus, K., 1, 2 ; Leitmeier, H., 2.
—— (——), glaciation.—**0**, Angerer, H., 1–3, 5 ; **1**, Lucerna, R.
—— (——), mineral resources.—**1**, Canaval, R. ; Krusch, P. ; **2**, Bœhne, E. ; Reitzenstein, W. v.
—— (——). *See also* Carnic Alps *&* Tauern Mts.
Carlos Gap (N.S.W.).—**0**, Jones, L., 2.
Carluke (Lanark).—**1**, Hinxman, L. W.
Carnallite, Harz.—**2**, Lachmann, R., 2.
Carnarvon Ranges (Queensl.).—**2**, Jensen, H. I., 3.
Carnarvonshire.—**0**, Davis, W. M., 5 ; Gregory, J. W., 3 ; **1**, Warren, S. H., 2 ; **2**, Heard, A., 2 ; Silvester, N. L. ; Williams, H.
Carneyella.—**0**, Clark, T. H.
Carnic Alps (Carinthia-Venetia).—**0**, Vinassa de Regny, P. ; **2**, Gortani, M.
Carniola (Yugoslavia).—**0**, Ampferer, O., 12 ; Tietze, E. E. A., 7 ; Waagen, L. ; **1**, Hærtel, F. ; Heritsch, F., 4–6 ; Salopek, M.
—— (——), ore-deposits.—**0**, Hinterlechner, K., 4; **1**, Krusch, P. ; **2**, Dittler, E., 2 ; Granigg, B.
Carnivora.—**2**, Thorpe, M. R., 1, 4.
——, Eocene.—**1**, Schlosser, M.
——, Miocene.—**1**, Thorpe, M. R., 3 ; **2**, O'Harra, C. C.
——, Oligocene.—**0**, Thorpe, M. R. ; **2**, Eaton, G. F. ; Helbing, H., 1, 2 ; O'Harra, C. C. ; Schlosser, M., 3 ; Sinclair, W. J. ; Thorpe, M. R., 3.
——, Pleistocene.—**0**, Sœrgel, W., 3 ; Želízko, J. V., 9 ; **1**, Geib, K. ; Lull, R. S., 3 ; **2**, Battaglia, R. ; Boule, M. ; Dietrich, W. O., 7 ; Reck, H., 7 ; Schlosser, M., 3 ; Schmidtgen, O. ; Woldřich, J. ; Želízko, J. V., 2.
——, Pliocene.—**1**, Stromer, E. ; Thorpe, M. R., 3 ; **2**, Schlosser, M., 2.
——, Quaternary.—**1**, Dubois, G., 4 ; Kormos, T., 2 ; Stefano, G. de, 3 ; **2**, Athanasiu, S. C., 4, 7 ; Fabiani, R., 7.
——, Tertiary.—**1**, Kormos, T., 2 ; **2**, Thorpe, M. R., 5.
——, cave remains.—**1**, Del Vecchio, C., 2 ; Kormos, T., 6 ; **2**, Battaglia, R.
Carnivora. *See also* Canidæ, Pinnipedia, *&c.*
Carolina (Transvaal).—**0**, Hall, A. L.
Carpathian sandstone. *See* Flysch.
Carpathians.—**0**, Petrascheck, W. ; **2**, Goldschlag, M.
——, salt deposits.—**1**, Voitesti, J. P. ; **2**, Mrazec, L., 7.
——, soils.—**1**, Timkó, I. ; Treitz, P.
——, tectonics.—**1** & **2**, Teisseyre, W.
—— (E.).—**0**, Pavlovski, S. ; **2**, Quiring, H., 2.
—— (N.E.).—**1**, Posewitz, T.
—— (N.W.).—**1**, Kulcsár, K., 3 ; Lóczy, L. v., 2 ; Lóczy, L. v. *fil.*, 3.
—— (S.).—**1**, Liffa, A. ; **2**, Martonne, E. de, 2.
—— (W.).—**0**, Heritsch, F., 4 ; **1**, Petrascheck, W.
——. *See also* Galicia *&* Transylvania.
Carpholite schists. *See* Schists.
Carrajung (Vict.).—**2**, Ferguson, W. H., 3.
Carrara (Tuscany).—**0**, Meli, R., 3.
Carrock Fell (Cumberland).—**0**, Holmes, A., 8 ; Melmore, S.
Cartennian, Algeria.—**0**, Dalloni, M. ; Fischeur, E., 2.
Caryocaris.—**2**, Ruedemann, R., 2.
Caryocrinites.—**0**, Fœrste, A. F., 9.
Caryophyllia.—**2**, Vincent, E., 3.
Cassiduloida.—**0**, Hawkins, H. L., 2.
Cassiterite.—**0**, Artini, E. ; **1**, Davison, E. H., 3 ; **2**, Beger, P. J., 2 ; Williams, A. S.
——, Bohemia.—**2**, Krusch, P., 3.
——, Cornwall.—**2**, Davison, E. H.
——, Japan.—**0**, Katô, T.
——, Katanga.—**2**, Lohest, M., 2.
——, Spain.—**0**, Dœrpinghaus, W. T.
Castelgomberto (Venetia).—**2**, Kranz, W. ; Oppenheim, P.
Castellane (Basses-Alpes).—**0**, Guébhard, A., 3 ; Zurcher, P. ; **1**, Dollfus, G. F., 5.
Castelnovate (Lombardy).—**1**, Salmójraghi, F., 5.
Castle-an-Dinas (Cornwall).—**0**, Davison, E. H.
Castlepook (Cork).—**0**, Ussher, R. J.
Catalonia (Spain).—**0**, Maury, E. ; Wurm, A., 2 ; **1**, Sampelayo, P. H. ; **2**, Faura i Sans, M., 2.
Catamarca (Argentina).—**0**, Kantor, M., 2 ; **2**, Penck, W.
Catanzaro isthmus (Calabria).—**1**, Crema, C., 3.
Catria, Mte. (Apennines).—**1**, Principi, P. ; **2**, Principi, P., 2.
Catskill Mts. (N.Y.).—**0**, Merwin, H. E.
Caucasus.—**0**, Lebedev, N. J. ; Reinhard, A. v. ; **1**, Bonnet, P., 1, 2.
——, mineral resources.—**0**, Bonnet, P., 3 ; Rundall, W. H. ; **2**, Simmersbach, B., 3 ; Thompson, A. B.

Cauldon (Staffs).—**1**, Alkins, W. E.
'Causses,' S. France.—**0**, Martonne, E. de.
Cautin (Chile).—**2**, Fritzsche, C. H., 3.
Cavargna, Val (Lombardy).—**1**, Maddalena, L., 2.
Cave-earth, Kenya.—**2**, Gregory, J. W.
—— -sediments, Texas.—**2**, Udden, J. A.
Caves.—**0**, Wichdorff, H. v.
——, Italy.—**1**, Bellini, R.; **2**, Battaglia, R.
——, Kenya.—**2**, Gregory, J. W.
——, Mexico.—**2**, Villafaña, A.
——, Norway.—**0**, Danielsen, D., 2; Oxaal, J.; **1**, Oxaal, J.
——, Slovakia.—**0**, Kadić, O., 2.
——, S. Rhodesia.—**0**, Molyneux, A. J. C.
——, Sweden.—**1**, Munthe, H.
——, Transylvania.—**0**, Kadić, O., 2.
——, United States.—**0**, Gardner, H. F.; **1**, Clarke, N. T.; Hastings, J. B.
——. *See also* Ice caves, Kent's Cavern, Mammalia, *&c.*
Cavicornia.—**1**, Campana, D. del; **2**, Munthe, H.
——, Pleistocene.—**0**, Wanderer, K.; **2**, Hescheler, K.; Hilzheimer, M., 3.
——, Pliocene.—**0**, Joleaud, L.; **2**, Schaub, S., 2.
——, Quaternary.—**0**, Flick, O.; Joleaud, L.; **1**, Del Vecchio, C.; Stefano, G. de, 4; **2**, Athanasiu, S. C., 7.
Cavities, in amber.—**2**, Dahms, P., 2.
——, in Carboniferous Limestone, Belgium.—**2**, Stainier, X.
——, in lava, Mexico.—**2**, Wittich, E., 4.
——, in sands, water &.—**2**, Wegner, T.
——. *See also* Crystal-cavities.
Cavolinite.—**0**, Cesàro, G.
Cayuga, L. area (N.Y.).—**2**, Long, E. T.
Ceboruco volc. (Mexico).—**1** ,Waitz, P.
Cedroxylon.—**2**, Colani, M., 2.
Celebes (D.E.I.).—**0**, Abendanon, E. C.; Anon., 25, 35; Martin, K., 4; Wanner, J., 3; **1**, Dollfus, G. F., 8; Reijzer, J.; **2**, Brouwer, H. A., 7.
Celestite.—**1**, Kalkowsky, E., 2; **2**, Grahmann, W.
——, Ontario.—**1**, Spence, H. S., 2; Wilson, M. E.; **2**, Spence, H. S., 3.
Celle (Hanover).—**1**, Harbort, E.
Cellina valley (Venetia).—**2**, Zenari, S.
Cellulose.—**2**, Gothan, W.
Celtites.—**1**, Airaghi, C., 8.
Cements.—**1**, Wybergh, W.
——, Sweden.—**0**, Anon., 39.
Cenomanian, Morocco.—**2**, Russo, P., 4.
——, Pas-de-Calais.—**2**, Stieler, C., 3.
——, Pyrenees.—**2**, Bertrand, L.
Central America. *See* America.
Central Australia.—**0**, Howchin, W., 8; **1**, Talbot, H. W. B., 2.
Central India (India).—**2**, Hezner, L., 2.
Central Provinces (India).—**0**, Fermor, L. L., 3; Hallowes, K. A. K., 1, 2; **1**, Brown, J. C., 6; **2**, Hezner, L., 2; Matley, C. A., 1, 2.
Centre (Hainault).—**0**, Fourmarier, P., 9.
Centrosaurus.—**2**, Parks, W. A., 2.
Cephalopoda.—**0**, Bœhm, J., 5; **1**, Buelow-Trummer, E. v., 2; Fallot, P., 3; **2**, Grabau, A. W., 3.
——, Cretaceous.—**0**, Clark, W. B., 2; Woods, H.; **1**, Franke, F.; Ravn, J. P. J.
——, Culm.—**1**, Weigelt, J.
——, Devonian.—**0**, Leidhold, C., 2; Nettelroth, H.; **1**, Hueffner, E., 2.
——, Jurassic.—**0**, Renz, C.
——, Lias.—**1**, Hauff, B.
——, Ordovician.—**0**, Holtedahl, O., 12, 13; Shaw, E. W., 5.
——, Silurian.—**0**, Nettelroth, H.; **1**, Couffon, O.
——, Trias.—**0**, Diener, C., 3; **2**, Diener, C., 2; Mansuy, H., 4, 9.
——. *See also* Ammonoidea, Sepioidea, *&c.*
Ceram I. *See* Seran I.
Ceraphroninæ.—**0**, Meunier, F., 2.
Ceratites.—**0**, Arthaber, G. v.; Benecke, E. W., 2; **1**, Airaghi, C., 8; Riedel, A.; Stolley, E., 3; **2**, Schlagintweit, O., 2.
—— -beds, Germany.—**1**, Riedel, A.; Stolley, E., 3.
Ceratitoidea.—**1**, Diener, C., 2, 3.
Ceratodontidæ.—**0**, Stromer, E., 4.
Ceratodus.—**0**, Stromer, E., 4; **2**, Schalch, F., 3.
Ceratopsidæ.—**2**, Gilmore, C. W.
Ceratopyge fauna, N. America. — **2**, Raymond, P. E., 3.
Ceratosaurus.—**0**, Gilmore, C. W., 6.
Ceraurus.—**2**, Walcott, C. D., 2.
Cère valley (Cantal).—**1**, Boisse de Black, Y., 1, 2; **2**, Boisse de Black, Y., 1–3.
Ceres (Vict.).—**2**, Ferguson, W. H.; Howitt, A. M.; Kenny, J. P. L., 2.
Cerithiidæ.—**0**, Suter, H., 3; **2**, Charpiat, R., 2, 3.
Cerithium.—**0**, Charpiat, R., 1, 2; Dollfus, G. F., 18; **1**, Dollfus, G. F., 7. *See also Tiaracerithium.*
—— -limestone, Denmark.—**1**, Nielson, K. B.
Cerium minerals.—**1**, Geijer, P., 5.
—— sulphate.—**1**, Stuart, M., 2.
Cernaysian.—**1**, Matthew, W. D.
Cerro de Pasco (Peru).—**1**, Fuchs, F. G.

Ceruleofibrite.—**2**, Holden, E. F., 2.
Cervaro (Campania).—**2**, Craveri, M.
Cervati, Mte. (Campania).—**0**, Biasutti, R.
Cervicornia.—**2**, Hilzheimer, M.
——, Miocene.—**2**, Schlosser, M., 4.
——, Pliocene.—**2**, Athanasiu, S. C., 4, 6, 8.
——, Quaternary.—**0**, Sheppard, T., 2 ; Werth, E., 4 ; **1**, Œdum, H. ; Stefano, G. de, 4 ; **2**, Athanasiu, S. C., 4, 5, 7, 9.
Cervidæ.—**2**, Hilzheimer, M.
Cervino. *See* Matterhorn.
Cervus.—**0**, Werth, E., 4 ; **1**, Stefano, G. de, 4 ; **2**, Athanasiu, S. C., 4, 6, 7, 9.
Cesarolite.—**1**, Anon., 4 ; Buttgenbach, H., 2.
Cetacea.—**0**, Weber, M. ; **2**, Stromer, E., 4.
——, Eocene.—**0**, Andrews, C. W., 3 ; **1**, Allen, G. M.
——, Miocene.—**1**, Packard, E. L. ; Rovereto, G. ; **2**, Dal Piaz, G., 1, 2.
——, Pliocene.—**2**, Gennevaux, M.
——, Tertiary.—**1**, Nordmann, V. ; **2**, Frenguelli, G.
Cetina valley (Dalmatia).—**0**, Kerner, F. v., 7–9.
Ceylon.—**0**, Keilhack, K., 2 ; **1**, Anon., 6 ; Keilhack, K., 2 ; Wayland, E. J. ; **2**, Wayland, E. J.
Chabasite.—**2**, Nacken, R., 4 ; Stoklossa, G.
Chabutite.—**0**, Anon., 17.
Chad, L. (Africa).—**2**, Migeod, F. W. H.
Chætetes.—**2**, Dietrich, W. O., 4 ; Heritsch, F., 4, 5.
Chætetidæ.—**1**, Dehorne, Y.
Chætophorites.—**2**, Pratje, O.
Chaforinas Is. (Sp. Morocco).—**1**, Marín, A., 2.
'Chaîne numidique' (Algeria).—**2**, Dalloni, M., 5.
Chalcanthite.—**0**, Larsen, E. S.
Chalcedony.—**0**, Gœtzinger, G., 3 ; **2**, Washburn, E. W. *See also* Enhydros.
Chalcocite.—**1**, Murray-Hughes, R. ; **2**, Beutell, A., 4 ; Muegge, O., 12.
——, Alaska.—**0**, Bateman, A. M., 2.
——, Mexico.—**2**, Eichler, A.
Chalcodite.—**0**, Shannon, E. V., 8 ; **2**, Shannon, E. V.
Chalcography.—**1** & **2**, Schneiderhœhn, H., 2.
Chalcopyrite.—**1**, Repossi, E., 6 ; **2**, Muegge, O., 12 ; Uglow, W. L., 2.
——, Austria.—**1**, Chlebus, P. ; **2**, Reitzenstein, W. v.
——, Manitoba.—**0**, Bruce, E. L., 3.
Chalicotheriidæ.—**0**, Forster-Cooper, C. ; **2**, Borissiak, A. ; Forster-Cooper, C.
Chalk.—**0**, Gentil, L., 3; Richardson, W. A. ; **1**, Martel, E. A.
Chalk, Beaconsfield area.—**2**, Sherlock, R. L., 4.
——, Brabant.—**1**, Halet, F., 4.
——, Buckinghamshire.—**0**, Sherlock, R. L., 3 ; **1**, Whitaker, W., 2.
——, England (E.).—**2**, Boswell, P. G. H., 4 ; Whitaker, W., 2.
——, Essex.—**0**, Thompson, P.
——, France.—**0**, Burwash, E. M., 1, 2 ; **1**, Dubois, G., 6 ; Hure, A. ; **2**, Lemoine, P., 2.
——, Hertfordshire.—**0**, Gilbert, C. J. ; Sherlock R. L., 1, 2, 4 ; **1**, Whitaker, W., 2 ; Wooldridge, S. W.
——, Kent.—**2**, Leach, A. L.
——, London area.—**2**, Dewey, H., 2.
——, Middlesex.—**1**, Wooldridge, S. W.
——, Surrey.—**0**, Butler, G. W. ; Dewey, H. ; Whitaker, W., 4 ; **1**, Young, G. W. ; **2**, Dibley, G. E., 2.
——, Sussex.—**2**, Thomson, D. H.
——. *See also* Red Chalk.
Chalk-marls, France (N.E.).—**1**, King, W. B. R.
Chalky boulder-clay, Suffolk.—**1**, Moir, J. R., 2.
Challex (Ain).—**2**, Heim, Arnold.
Chalon (Saône-et-Loire).—**0**, Depéret, C., 3.
Chalonnes (Maine-et-Loire).—**1**, Carpentier, A., 3 ; Ferronnière, G., 2 ; **2**, Ferronnière, G.
Châlons-sur-Marne (Marne).—**1**, Denizot, G.
Chama.—**1**, Douvillé, H., 22.
Chamonix (Haute-Savoie).—**0**, Paréjas, E., 2 ; **1**, Douvillé, H., 11 ; Paréjas, E., 1–4.
Chamosite-hæmatite-pisolite, Valais. —**2**, Stauffacher, J., 3.
Champlain sea, N. America.—**1** & **2**, Goldring, W.
Champlain valley (N.Y.).—**0**, Fairchild, H. L., 2.
Channel Is.—**0**, Parkinson, J. *See also* Guernsey, *&c.*
Chara.—**1**, Reid, C.
Characeæ.—**1**, Dollfus, G. F., 14, 15.
Characilepis.—**2**, Cockerell, T. D. A., 2.
Charcoal.—**0**, Mohr, H. ; **2**, Hœfer, H. ; Petrascheck, W.
Charcos, Arizona.—**0**, Bryan, K.
Charente-Inférieure (France). — **1**, Douvillé, H., 8.
Charenton (Paris area).—**1**, Dollot, A., 6.
Charleroi (Hainault).—**0**, Fourmarier, P., 9 ; **2**, Cambier, R. ; Renier, A.
Charlottenbrunn (Silesia).—**1**, Finckh, L., 3.
Charlton (Kent).—**0**, Leach, A. L., 3.
Charnockite, Mysore.—**0**, Iyengar, P. S., 2.
—— series, India.—**0**, Hallowes, K. A. K., 2 ; Vredenberg, E. W., 2.

Charnwood Forest.—**1**, Richardson, W. A., 3.
Charophyta.—**0**, Groves, J.; **1**, Reid, C.
Chartreuse (Isère).—**1**, Combaz, P. *See also* Grande Chartreuse.
Châteaubriant (Loire-Inférieure).—**0**, Kerforne, F., 6.
Château-Thierry (Aisne).—**0**, Morellet, L., 2.
Chattian, Ille-et-Vilaine.—**2**, Dangeard, L., 2.
Cheilostomata.—**1** & **2**, Lang, W. D.
Cheiron (Alpes-Maritimes).—**2**, Lanquine, A.
Chelan, L. (Wash.).—**1**, Runner, J. J., 2.
Chelles (Seine-et-Marne).—**1**, Ameghino, F., 15–19.
Chellian, Norfolk.—**1**, Moir, J. R., 5.
——, Seine-et-Marne.—**1**, Ameghino, F., 15.
Chelonia.—**1**, Stefano, G. de, 7, 8; Stefano, J. de; **2**, Nopcsa, F., 10.
——, Cretaceous.—**0**, Andrews, C. W.; Gilmore, C. W., 1, 4; **1**, Gilmore, C. W.
——, Eocene.—**0**, Andrews, C. W., 1, 3; Fabiani, R., 7; Gilmore, C. W., 1, 4; **2**, Harrassowitz, H. L. F., 1, 4.
——, Jurassic.—**1**, Andrews, C. W.; **2**, Œrtel, W.
——, Miocene.—**0**, Fourtau, R., 2; Siebenrock, F.
——, Oligocene.—**0**, Wegner, T., 2; **2**, O'Harra, C. C.; Schlosser, M., 3.
——, Pleistocene.—**0**, Chapman, F., 2; **2**, Hay, O. P.
——, Tertiary.—**2**, Teppner, W., 2.
Chelonia.—**0**, Wegner, T., 2.
Chemistry. *See* Geophysical chemistry, Microchemistry *&c.*
Chert bed, Rhynie.—**2**, Kidston, R., 2.
Cherts.—**2**, Andrée, K.
——, Derbyshire.—**0** & **1**, Sargent, H. C.
——, Federated Malay States.—**2**, Willbourn, E. S.
Cheshire.—**0**, Greenwood, H. W.; Hewitt, W., 2, 4; Jones, T. A., 3; Maidwell, F. T.; **1**, Ashton, W.; **2**, Travis, W. G.; Walker, W. T. *See also* Mersey R.
Chester series, Illinois-Kentucky.—**0**, Ulrich, E. O.; Weller, S.; **2**, Weller, S., 1, 2.
Chesterlite.—**0**, McKinstry, H. E.
Cheviot (N.Z.).—**1**, Henderson, J., 3.
Chèvremont (Liége).—**1**, Fourmarier, P., 12.
Cheyenne sandstone, Kansas.—**2**, Berry, E. W., 17.
Chiampo basin (Venetia).—**0**, Caffaratti, M.
Chiavari (Liguria).—**1**, Maddalena, L., 5; **2**, Rovereto, G., 2.
Chichagof I. (Alaska).—**0**, Overbeck, R. M., 2.
Chichen Itza (Yucatan).—**2**, Washington, H. S., 2, 10.
Chichtonite.—**2**, Perrier, C.
Chihli (China).—**2**, Grabau, A. W.
Chile.—**0**, Bodman, G.; Bruhns, W.; **2**, Berry, E. W., 1, 4; Eigenmann, C. H.; Fritzsche, C. H., 3; Lindgren, W., 4; Marsh, R., *fil.*
——, copper.—**0**, Yeatman, P.; **1**, Kuntz, J.; Œhmichen, J.; **2**, Hendricks, J. A.
——, Mesozoic.—**2**, Brueggen, J.; Fritzsche, C. H., 2; Stehn, E.
——, mineral resources.—**0**, Whitehead, W. L., 2; **1**, Anon., 18; Felsch, J., 2; Jochamowitz, A.; Linnemann, C.; Pitblado, L.; **2**, Simmersbach, B., 7.
——, water.—**1** & **2**, Felsch, J.
——. *See also* Antofagasta.
Chilka, L. area (Madras Presidency).—**2**, Annandale, N.
Chillagoe (Queensl.).—**0**, Jensen, H. I.
Chiltern (Vict.).—**0**, Kenny, J. P. L., 3, 4.
Chiltern Hills.—**0**, Bury, H., 2; **1**, Barrow, G.
China.—**1**, Lee, J. S.; Solger, F., 2.
——, earthquake.—**1**, Davison, C., 5.
——, mineral resources.—**0**, Anon., 30; Harder, E. C., 2; **2**, Hubbard, G. D., 2; Keiper, —; Mathieu, F. F., 2; Schultze, E., 3.
—— (N.).—**2**, Grabau, A. W., 2; Lee, J. S.
—— (S.), coasts.—**0**, Schofield, W.
—— (S.W.).—**0**, Deprat, J.; **2**, Gregory, J. W., 10.
——. *See also* Kansu, Yangtze valley. *&c.*
China-clay, Quebec.—**2**, Wilson, M. E.
—— - ——, Victoria.—**0**, Baragwanath, W.
—— - ——. *See also* Kaolin.
Chines, Hampshire.—**0**, Bury, H.; Carus-Wilson, C.; Ord, W. T.; **2**, Bury, H.
Chinese Tibet. *See* Tibet.
Chipping Sodbury (Glos).—**1**, Bolton, E.
Chiroptera.—**0**, Revilliod, P., 1, 2; **1** & **2**, Revilliod, P.
Chirotherium.—**0**, Walther, J., 4.
Chislehurst (Kent).—**0**, Stamp, L. D., 2.
Chislet (Kent).—**0**, Ackermann, A. S. E.
Chitina valley (Alaska).—**1**, Moffit, F. H.
Chitral (N.W.F.P.).—**2**, Reed, F. R. C., 2.
Chloanthite.—**2**, Beutell, A, 2, 3.
Chlorine, in water.—**0**, Vickery, H. B.
Chlorite.—**0**, Shannon, E. V., 11; **2**, Grill, E., 4; Shannon, E. V., 4.
—— -limestones. *See* Limestones.

Chlorite-ottrelite-schists. *See* Schists.
Chocs dolomite, Slovakia.—**0**, Pia, J., v., 2 ; **2**, Dornyay, B.
Chondrites.—**2**, Franceschi, R., 1, 3.
Chondrules, in meteorites.—**0**, Merrill, G. P., 10.
Choneziphius.—**0**, Weber, M.
Chota Nagpur (Bihar & Orissa).—**2**, Anon., 21.
Christchurch observatory (N.Z.).—**2**, New Zealand, 14, 15.
Chromite.—**0**, United States, 6, 8 ; **1**, Brown, J. C., 4 ; **2**, Duparc, L., 3 ; Simmersbach, B., 2 ; United States, 10, 12.
——, Alaska.—**0**, Mertie, J. B. *fil.*, 6 ; **1**, Gill, A. C.
——, British Columbia.—**0**, Ferrier, W. F., 2.
——, Quebec.—**0**, Gwillim, J. C.
——, United States.—**0**, United States, 5 ; **1**, Diller, J. S. ; United States, 8 ; **2**, Diller, J. S., 2 ; Gordon, S. G., 2.
Chromium.—**1**, Imperial Mineral Resources Bureau, 4.
——, Asia Minor.—**0**, Anon., 33.
——, Carinthia.—**1**, Hackl, O.
——, Cuba.—**1**, Burchard, E. F., 2.
——, New Zealand.—**0**, Morgan, P. G., 8.
——, Serbia.—**2**, Huetter, C.
——, Spain.—**0**, Orueta, D. de.
——, United States (E.).—**2**, Knopf, E. B., 2.
——. *See also* Sand-chrome.
Chromium minerals.—**0**, Emmons, W. H.
Chronology, Jurassic.—**0**. Buckman, S. S., 2 ; *see also* Geochronology & Time.
Chrysoberyl.—**0**, Artini, E., 2.
Chrysolite.—**1**, Brun, A.
Chrysophrys.—**0**, Sacco, F., 7.
Chugwater formation, Wyoming.—**0**, Condit, D. D.
Chuquicamata (Chile).—**0**, Yeatman, P. ; **2**, Junghann, —.
Churchdown (Glos).—**2**, Upton, C.
Churchill R. area (Manit.).—**1**, Alcock, F. J., 6.
Churfirsten (St. Gallen).—**0**, Heim, Arnold.
Cilicia (Asia Minor).—**2**, Daus, H. ; Wolff, W.
Cimolais (Venetia).—**1**, Feruglio, E., 2.
Cinnabar.—**1**, Ehringhaus, A., 2 ; Rose, H. ; Steinmetz, H., 2.
——, Idaho.—**0**, Larsen, E. S., 2.
——, New Zealand.—**2**, Cropp, W. H.; Henderson, J. 4.
——, Tuscany.—**2**, Ermisch, K. ; Trœgel, H.
Cipolin, Puy-de-Dôme.—**2**, Garde, G., 2.
Cippenham (Bucks).—**0**, Booth, W. H.
Cirques.—**0**, Frech, F. ; Jessen, O.
Cirripedia.—**0**, Withers, T. H., 2 ; **2**, Wilckens, O., 2.
——, Cretaceous.—**0**, Cole, G. A. J. ; Withers, T. H. ; **1**, Rosenkrantz, A., 2 ; **2**, Withers, T. H., 1, 3, 4.
——, Ordovician.—**0**, Bassler, R. S. ; **1**, Withers, T. H. ; **2**, Withers, T. H., 2.
Citharellenkalk, Germany-Switzerland.—**2**, Leuze, J.
Citronelle formation, Gulf Coastal Plain.—**0**, Matson, G. C., 2.
Ciudad Real (Spain).—**0**, Born, A. ; **1**, Kalb, C. de ; Ransome, F. L. ; **2**, Mélon, J.
Clackline (W. Austr.).—**0**, Feldtmann, F. R., 4.
Cladodus.—**2**, Hennig, E., 4.
Claiborne group, Georgia (U.S.A.).—**1**, Cooke, C. W., 2.
Clarafond (Haute-Savoie).—**1**, Doncieux, L.
Clarain.—**2**, Sinnatt, F. S., 2 ; Stopes, M. C., 2.
Clarence valley (N.Z.).—**0**, Thomson, J. A.
Clarencetown (N.S.W.).—**2**, Osborne, G. D.
Clark, L. area (Alaska).—**0**, Smith, P. S.
Clastic sediments. *See* Sediments.
—— structure. *See* Pseudoclastic structure.
Clauzetto (Venetia).—**0**, Gortani, M.
Claverham (Somerset).—**1**, Greenly, E., 2.
Clavier (Liége).—**0**, Anten, J.
Clay-slates. — **1**, Walther, K. ; **2**, Kœhler, G.
Clay-with-flints, France. — **1**, Lissajous, M., 2 ; Randoin, —.
—— ——, Surrey.—**0**, Whitaker, W., 4.
Claygate beds, Middlesex.—**1**, Wrigley, A.
Clays.—**0**, Grout, F. F., 3 ; **1**, Olsson, J. ; Sayles, R. W. ; Walther, K. ; **2**, Ackermann, A. S. E. ; Parmelee, C. W. ; Searle, A. B.
——, Argentina.—**0**, Cuomo, M.
——, British Columbia.—**0** & **1**, Keele, J.
——, Derbyshire.—**0**, Lamplugh, G. W., 35.
——, Durham.—**0**, Trechmann, C. T.
——, Federated Malay States.—**0**, Jones, W. R.
——, France.—**1**, Degrange-Touzin, A. ; Gosselet, J., 2.
——, Germany.—**1**, Meyer, E., 6 ; **2**, Matthiass, W.
——, Japan.—**2**, Ihara, K.
——, Mysore.—**0**, Balaji Rao, B.
——, New Zealand.—**0**, Morgan, P. G., 2 ; **2**, Grange, L. I. ; Park, J.
——, Ontario.—**0**, Keele, J. ; Kule [Keele], J. ; **1**, Keele, J., 2, 4 ; **2**, Keele, J.
——, Piedmont.—**0**, Sacco, F., 2.

Clays, S. Australia.—**1**, Ward, L. K., 2.
——, Staffordshire.—**0**, Lamplugh, G. W., 35.
——, United States.—**0**, Easton, H. D.; Grout, F. F., 3; Matson, G. C.; Peck, F. B.; Ries, H.; United States, 4–6, 8; **2**, United States, 11.
——, W. Australia.—**0**, Feldtmann, F. R., 1–4.
——, analyses.—**0**, Eichleiter, C. F.; **1**, Horváth, B. v., 3.
——, bauxite-, Ayrshire.—**2**, Wilson, G. V.
—— ——, Victoria.—**2**, Whitelaw, O. A. L., 2.
——, bleaching.—**0**, Lang, R.; **2**, Gagel, C., 3.
——, with boulders, Denmark.—**2**, Reusch, H., 6.
——, ceramic, S. Africa.—**1**, Anon., 7.
——, ——, Victoria.—**2**, Anon., 19.
——, cupriferous, Bohemia.—**2**, Stoċes, B.
——, ferriferous, Finland.—**2**, Aarnio, B.
——, ——, Poland.—**1**, Pawlica, W.
——, glacial, Prussia.—**2**, Keilhack, K., 2.
——, gouge.—**2**, Beck, R., 2.
——, gumbotil.—**0**, Kay, G. F., 2.
——. *See also* Boulder-clay, Fire-clays, *&c.*
Cleavage, crystal-structure &.—**1**, Scharizer, R.
——, minerals &.—**2**, Beckenkamp, J., 5.
——, schistose.—**1**, Fourmarier, P.
Clevedon, (Somerset).—**0**, Greenly, E., 2; **1** & **2**, Greenly, E.
Cleveland (Yorks).—**0**, Anon., 23.
Clidastes.—**2**, Wiman, C., 3.
Cliffs, Germany (E.).—**1**, Otto, T.
——, Pacific islands.—**0**, Davis, W. M., 3.
——. *See also* Chines.
Clifton (Bristol area).—**0**, Reynolds, S. H.; **1**, Reynolds, S. H., 2, 3; **2**, Reynolds, S. H.
Climates.—**1**, Harrassowitz, H. L. F.; **2**, Kessler, P., 3; Mohr, E.; Schuster, W.; Visher, S. S., 1, 2.
——, Carboniferous.—**0**, Knight, S. H.
——, changes.—**1**, Marriott, R. A., 2; Shapley, H.; **2**, Murgoci, G., 8.
——, Eocene.—**2**, Berry, E. W., 11.
——, evolution.—**1**, Knowlton, F. H., 2; Schuchert, C., 3; **2**, Manson, M.
——, former.—**0**, Arldt, T., 3; Dacqué, E.; Knowlton, F. H., 4, 5; Pompeckj, J. F., 6; Rovereto, G.; Smith, J. P.; **1**, Philippi, E.; **2**, Eckardt, W. R.; Kerner, F. v.; Sayles, R. W.
Climates, former, fossils &.—**2**, Case, E. C.; Knowlton, F. H., 2; Walther, J.
——, glacial periods &.—**0**, Sacco, F., 31.
——, Permo-Carboniferous.—**0**, Eckardt, W. R.
——, Pleistocene.—**1**, Stoller, J., 7; **2**, Lilpop, J.
——, post-Glacial.—**1**, Hinch, J. de W.; **2**, Kraus, E.; Œyen, P. A., 5.
——, Quaternary.—**0**, Post, L. v.; Sacco, F., 35; **1**, Brooks, C. E. P.; Chudeau, R., 5; Sandegren, R.; Spitaler, R.; Taramelli, T., 10; **2**, Dachnowski, A. P.; Negri, G.
——, Tertiary.—**2**, Kerner, F. v., 2; Speight, R., 4.
Climaxodus.—**0**, Woodward, A. S., 3.
Clinoenstatite.—**1**, Andersen, O.
Clinometer.—**2**, Leiss, C.
Clinton (S. Austr.).—**1**, Ward, L. K., 7.
Cliona.—**0**, Annandale, N.
Clisiophyllidæ.—**1**, Salée, A.
Cloncurry (Queensl.).—**0**, Dunstan, B.
Clun Forest (Salop).—**1**, Stamp, L. D.
Clupea.—**2**, Erasmo, G. d', 2.
Clydach Vale (Glamorgan).—**1**, Davies, D., 1, 2.
Clyde R.—**1**, Gregory, J. W., 5.
Clypeaster-beds, Asia Minor.—**0**, Oppenheim, P., 5.
Clypeina.—**1**, Morellet, L.
Clypeorbis.—**2**, Douvillé, H., 6.
Cnidaria.—**1**, Diener, C., 5.
Coahuila (Mexico).—**1**, Bœse, E., 2.
Coal.—**0**, Fábrega, P.; Iwasaki, C.; **1**, Gibson, W.; Imperial Mineral Resources Bureau, 15; **2**, Appleby, W. E.; Hackford, J. E.; Kendall, P. F.; Weithofer, K. A., 2.
——, Abyssinia.—**0**, Kirsopp, J.
——, Alaska.—**0**, Martin, G. C., 2; **2**, Chapin, T.
——, Alberta.—**1**, MacVicar, J.; Rose, B.
——, Algeria.—**2**, Dussert, D.
——, Anglesey.—**0**, Greenly, E.
——, Asia Minor.—**0**, Kirsopp, J.
——, Austria.—**1**, Canaval, R.; Grimmer, J.; **2**, Petrascheck, W., 3.
——, Belgium.—**0**, Bellière, M., 4; Crooks, H. F.; Renier, A., 2; **1**, Brooks, A. H.; Delmer, A.; **2**, Frech, —.
——, Bohemia.—**1**, Hœfer, H. v., 2.
——, Brazil.—**0**, Hambloch, E.
——, British Columbia.—**1**, Marshall, J. R.; **2**, Uglow, W. L.
——, British Empire.—**2**, Great Britain, 8.
——, Canada.—**0**, Canada, 3; **1**, Canada, 5; **2**, Canada.
——, China.—**2**, Mathieu, F. F., 2; Schultze, E., 3.
——, Colombia.—**0**, Anon., 21.
——, Colorado.—**0**, Collier, A. J., 4.

Coal, Dutch E. Indies.—**1**, Loth, J. E. ; Reijzer, J. ; Ziegler, K. G. J. ; **2**, Hartmann, E. ; Mannhardt, F. G. ; Ziegler, K. G. J.

——, Egypt.—**0**, Kirsopp, J.

——, Europe (Central).—**1**, Anon. ; **2**, Petrascheck, W., 3.

——, France.—**0**, Crooks, H. F. ; Nelson, A. ; **2**, Frech, — ; Termier, P., 6.

——, Germany.—**0**, Crooks, H. F. ; Kriger, — ; Margerie, E. de ; **1**, Brooks, A. H. ; Vogel, H., 2 ; **2**, Beyschlag, F., 10 ; Bræuhæuser, M. ; Frech, — ; Ziervogel, H.

——, Great Britain.—**0**, Great Britain, 5.

——, Holland.—**2**, Simmersbach, B., 13.

——, Idaho.—**0**, Schultz, A. R. ; **1**, Mansfield, G. R., 2.

——, Illinois.—**2**, Cady, G. H. ; Shaw, E. W.

——, India.—**0**, Kirsopp, J., 2.

——, Ireland.—**0**, Anon., 20 ; **2**, Fletcher, G.

——, Italy.—**0**, Sacco, F., 17 ; **1**, Hœfer, H. v., 2 ; **2**, Craveri, M.

——, Japan.—**0**, Horne, H. ; Iwasaki, C. ; **2**, Schultze, E., 2.

——, Kentucky.—**0**, Browning, I. B. ; Crandall, A. R., 1–3 ; Crider, A. F., 1, 3 ; Fohs, F. J., 3; Glenn, L. C., 1, 2 ; Hodge, J. M., 1–8 ; Hoeing, J. B., 4 ; Hutchinson, F. M., 1, 3 ; Jillson, W. R., 3, 4 ; Norwood, C. J. ; Quickel, R. D. ; Russell, P. G.; **1**, Jillson, W. R., 11, 12 ; **2**, Jillson, W. R., 1, 9, 11.

——, Mexico.—**0**, Paredes, T., 2.

——, Midlands.—**0**, Fearnsides, W. G.

——, Montana.—**0**, Barnett, V. H. ; Calvert, W. R.

——, New Mexico.—**1**, Bauer, C. M., 2.

——, New South Wales.—**0**, Harper, L. F., 6, 7 ; Jones, L., 2, 4 ; **2**, Morrison, M., 1–3, 5, 6.

——, New Zealand.—**0**, Bartrum, J. A. ; Speight, R., 3 ; **2**, Ferrar, H. T., 6 ; Grange, L. I., 1, 2 ; Park, J. ; Speight, R.

——, Nova Scotia.—**1**, Hayes, A. O., 2.

——, Ohio.—**1**, Stout, W., 1–3 ; **2**, Conrey, G. W.

——, Oklahoma.—**0**, Fuller, M. L. ; Price, W. A., 2.

——, Persia.—**0**, Kirsopp, J.

——, Peru.—**0**, Campbell, W. ; **1**, Dueñas, E. I. ; **2**, Romero, C. L. ; Santolalla, F. M.

——, Poland.—**0**, Kriger, — ; **1**, Hœfer, H. v., 2.

——, Portuguese E. Africa.—**2**, Anthoine, R., 7.

——, Queensland.—**0**, Cameron, W. E. ; Reid, J. H., 2, 3 ; **2**, Jensen, H. I., 3 ; Morton, C. C., 2 ; Reid, J. H.

Coal, Rhodesia.—**1**, Anon., 24 ; Mennell, F. P., 3.

——, Romania.—**0**, Kirsopp, J.

——, Russia.—**0**, Kirsopp, J. ; **2**, Kessler, P., 2.

——, Saskatchewan.—**1**, Dowling, D. B., 3.

——, S. Africa.—**0**, Humphrey, W. A. ; **1**, Du Toit, A. L., 3 ; **2**, Trevor, T. G.

——, Spitsbergen.—**0**, Cadell, H. M. ; **1**, Cadell, H. M., 2 ; Wordie, J. M. ; Zetsche, P. ; **2**, Brown, R. N. R. ; Hoel, A. ; Simmersbach, B., 6.

——, Switzerland.—**0**, Schmidt, C., 1, 2.

——, Syria.—**0**, Kirsopp, J.

——, Tasmania.—**0**, Reid, A. M.

——, Tennessee.—**0**, Butts, C., 3.

——, Turkey.—**0**, Kirsopp, J.

——, United States.—**0**, United States, 4–6, 8 ; **1**, United States, 7.

——, —— —— (W.).—**0**, Rogers, G. S., 2.

——, Victoria.—**0**, Herman, H., 1, 3 ; Hunter, S. B.

——, Wales (S.).—**0** & **1**, Illingworth, S. R.

——, W. Virginia.—**0**, Ashley, G. H., 4 ; **1**, Campbell, M. R.

——, W. Australia.—**0**, Blatchford, T., 4 ; Clarke, E. de C., 4, 14 ; **1**, Clarke, E. de C., 2 ; **2**, Maitland, A. G.

——, Wyoming.—**0**, Schultz, A. R.

——, analyses.—**0**, Eichleiter, C. F., 1, 4 ; Quickel, R. D. ; **1**, Firket, V. ; Horváth, B. v., 3 ; **2**, Dolch, M. ; Doliński, J. ; Dumitriu, V., 1, 2.

——, anthracitic, Chile.—**2**, Fritzsche, C. H., 3.

——, bituminous.—**0**, Thiessen, R. ; **2**, Baranov, A.

——, ——, Japan.—**0**, Iwasaki, C.

——, ——, Oberpfalz.—**1**, Kluepfel, W., 2.

——, ——, resins in.—**2**, Gresley, W. S. ; Wheeler, R. V.

——, brown coal &.—**2**, Sachs, A., 4.

——, carbonization.—**2**, Illingworth, S. R., 2.

——, combustibility & distribution.—**0**, Bærtling, R., 2 ; Herrmann, F. ; **1**, Stevenson, J. J.

——, combustion.—**0**, Rogers, G. S., 2 ; **2**, Shrader [Schrader], A.

——, composition.—**0**, Clarke, F. W. ; Illingworth, S. R. ; **1**, Sinnatt, F. S., 2 ; **2**, Drakeley, T. J. ; Illingworth, S. R. ; Jones, D. T. ; Roberts, J., 3 ; Stopes, M. C., 2 ; Tideswell, F. V.

——, Cretaceous.—**2**, Donath, E.

——, crushing of.—**2**, Briggs, H.

——, formation.—**0**, Marcusson, J. ; **1**, Fleissner, H. ; Hackford, J. E.

——, geological time &.—**2**, Lewis, H. P.

Coal, ‘low-sulphur,’ United States.—**1**, Cady, G. H.; Chance, H. M.; Jillson, W. R.

——, mineral matter in.—**1** & **2**, Lessing, R.

——, origin.—**1**, Weithofer, K. A.; **2**, Fischer, F.; Jeffrey, E. C.; Roberts, J.

——, oxidation of.—**2**, Durnerin, M.

——, paraffin-wax in.—**0**, Sinnatt, F. S.

——, permeability.—**0**, Graham, J. J.

——, petroleum &.—**0**, Fuller, M. L.; Lloyd, S. J.; Price, W. A., 2; **2**, Harley, J. P.; Reger, D. B.

——, photographs & sections.—**2**, Haslam, G. S.; Lomax, J., 2.

——, schistose, Switzerland.—**1**, Gerber, E., 1, 6; **2**, Jeannet, A.; Studer, T.

——, striped.—**0**, Winter, H.

——, structure.—**0**, Atkinson, R. W.; **2**, Booth, A. L.

——, sulphur in.—**0**, Thiessen, R., 2; **1**, Ashley, H. G., 2; Thiessen, R.; Wheeler, R. V.; White, I. C.; **2**, Fourmarier, P., 9.

——, world's resources.—**2**, Bœker, H. E.; Great Britain, 9.

——. *See also* Augen-coal, ‘Batt,’ Clarain, *&c.*

Coal apples.—**0**, Masterton, J.

—— balls, Belgium.—**0**, Bellière, M.

—— ——, Lancashire.—**0**, Bolton, E.

—— basins, Belgium.—**0**, Fourmarier, P., 9; **1**, Firket, V.; **2**, Cambier, R.; Delbrouck, M.; Dubois, J.

—— ——, Dalmatia.—**0**, Kerner, F. v., 11.

—— ——, France.—**0**, Termier, P., 7, 8; **1**, Carpentier, A.; Mouret, G.

—— ——, Kent.—**1**, Pruvost, P.

—— ——, Russia (Central).—**1**, Simmersbach, B.

Coal-fields, Alaska.—**0**, Martin, G. C.; **1**, Chapin, T.; **2**, Evans, G. W.

—— ——, Belgium.—**1**, Renier, A., 3.

—— ——, British Isles.—**1**, Gibson, W.

—— ——, Derbyshire.—**0**, Fearnsides, W. G., 2; **2**, Anon., 23; Great Britain, 4.

—— ——, Fife.—**2**, Anon., 22.

—— ——, Galicia.—**0**, Petrascheck, W., 8.

—— ——, Germany.—**0**, Gillitzer, G.; Krusch, P., 2; **2**, Krug, H.

—— ——, Ireland (N.E.).—**0**, Wright, W. B.

—— ——, Kent.—**0**, Ritchie, A. E.; **2**, Brown, E. O. F.; Simmersbach, B., 9.

—— ——, Lanarkshire.—**1**, Hinxman, L. W.

—— ——, Lancashire.—**0**, Rushton, A.; **2**, Hickling, G.

Coal-fields, Midlands.—**1**, Fox, J.; Ridsdale, H. H.; **2**, Boulton, W. S.

—— ——, New South Wales.—**2**, Robertson, J. R. M.

—— ——, New Zealand.—**0**, Henderson, J., 2; **1**, Henderson, J., 2; Morgan, P. G., 1, 2; **2**, Morgan, P. G., 2, 3.

—— ——, Nigeria.—**0**, Hayes, J. S.

—— ——, Nord.—**1**, Barrois, C.; Renier, A., 3.

—— ——, N. hemisphere.—**2**, Anon., 24.

—— ——, Nottinghamshire.—**0**, Fearnsides, W. G., 2; **2**, Anon., 23; Great Britain, 4.

—— ——, Queensland.—**2**, Morley, W. J.

—— ——, Sakhalin I.—**2**, Krishtofovich, A. N.

—— ——, Scotland.—**0**, Clough, C. T.; Hinxman, L. W.; Masterton, J.

—— ——, S. Africa.—**0** & **1**, Steart, F. A.; **2**, Mellor, E. T., 3; Wybergh, W. J.

—— ——, Staffordshire.—**0**, King, W. W.

—— ——, Sumatra.—**2**, Schreiber, F.

—— ——, United States.—**0**, Bryan, P. W.; Clark, F. R.; Crandall, A. R., 3; Hodge, J. M.; Woolsey, L. H.

—— ——, W. Australia.—**2**, Wilson, R. C.

—— ——, Yorkshire.—**2**, Anon., 23; Great Britain, 4.

Coal Measures.—**0**, Morgan, P. G., 5; **2**, Kendall, P. F.; Weithofer, K. A.

—— ——, Belgium.—**0**, Bellière, M.; Fourmarier, P., 2; Humblet, E.; Lohest, M., 3, 4; Renier, A., 1, 2; **1**, Humblet, E.; **2**, Bogaert, H.; Fourmarier, P.; Humblet, E.; Racheneur, F.; Renier, A., 1, 3.

—— ——, British Isles.—**1**, Gibson, W.

—— ——, Cardiff area.—**0**, Cox, A. H., 1, 2.

—— ——, Chihli.—**2**, Grabau, A. W.

—— ——, Cumberland.—**0** & **1**, Smith, B., 2.

—— ——, France.—**0**, Barrois, C.; Bertrand, P.; Launay, L. de; Pruvost, P., 3–6; **1**, Barrois, C.; Bertrand, P., 3; Pruvost, P., 3, 4, 6; **2**, Barrois, C., 2.

—— ——, Glamorgan.—**1**, Davies, D., 1, 2; **2**, Davies, R.; Heard, A.

—— ——, Gloucestershire.—**1**, Pringle, J.

—— ——, Great Britain.—**0**, Pruvost, P., 4.

—— ——, Lanarkshire.—**1**, Hinxman, L. W.

—— ——, Lancashire.—**0**, Bolton, E.

Coal Measures, Manitoba.—**1**, Dowling, D. B., 5.

—— ——, Midlands.—**2**, Whitehead, T. H.

—— ——, Monmouthshire. — **2**, Davies, R.

—— ——, Nelson.—**2**, Morgan, P. G., 9.

—— ——, Nottinghamshire. — **0**, Ford, J.; Longden, G. A.; **2**, Mitton, H. E.

—— ——, Queensland.—**1**, Reid, J. H.

—— ——, Saar.—**2**, Barrois, C., 2; Bertrand, P.

—— ——, Scotland (Central).—**0**, Clough, C. T.

—— ——, Staffordshire.—**2**, Kay, H.

—— ——, United States.—**0**, Browning, I. B.; Crandall, A. R., 2; Crider, A. F., 3; Glenn, L. C.; Hodge, J. M., 2–7; Hoeing, J. B., 4; Russell, P. G.; Swartz, C. K., 2; **2**, Ashley, G. H.; Cady, G. H.

—— ——, Warwickshire.—**0**, Eastwood, T.

—— ——, Yorkshire.—**2**, Everett, J. H.; Gilligan, A., 3.

Coal mines, New Zealand.—**0**, New Zealand, 2; **2**, New Zealand, 7, 8.

—— ——, Victoria.—**0**, Victoria, 4.

—— ——, temperatures in.—**1**, Hœfer, H. v., 2; **2**, Graham, J. I.

Coal mining, Alberta.—**2**, Sheppard, G.

—— ——, Belgium.—**1**, Stegemann, —.

—— ——, Great Britain.—**0**, Great Britain, 5.

—— ——, Iceland.—**0**, Eiriksson, H. H.

—— ——, Kent.—**0**, Ackermann, A. S. E.; Ritchie, A. E.

—— ——, Spitsbergen.—**1**, Cadell, H. M., 2.

Coal seams. — **0**, Fermor, L. L., 2; Morgan, P. G., 5; **1**, Hœfer, H. v.; Newey, D. S.; Weithofer, K. A.; **2**, Sinnatt, F. S., 2.

—— ——, Burma.—**0**, Hallowes, K. A. K., 3.

—— ——, New Brunswick. — **1**, Young, G. A.

—— ——, New Zealand.—**0**, Morgan, P. G., 4.

—— ——, Saxony.—**2**, Krug, H.

—— ——, Yorkshire.—**2**, Butterfield, J. A.

—— ——, limestone in.—**0**, Conacher, H. R. J.

—— ——, pebbles in.—**1**, Stainier, X., 2.

—— ——, 'wash-out' in.—**2**, Todd, J. M.

Coamo (Porto Rico).—**0**, Hodge, E. T.

Coast-erosion.—**0**, Jehu, T. J.; **2**, Matthews, E. R.

Coast-erosion, British Isles.—**2**, Great Britain, 1, 2.

—— - ——, Cheshire.—**2**, Walker, W. T.

—— - ——, England.—**0**, Roper, I. M.

—— - ——, Germany.—**1**, Schulte, L.; Tornquist, A.

—— - ——, Great Britain.—**1**, Ashton, W.

—— - ——, Hampshire.—**2**, Ord, W. T., 2.

—— - ——, Lancashire.—**0**, Travis, C. B., 2.

—— - ——, Northumberland. — **0**, Haselhurst, S. R., 2.

—— - ——, Pianosa I.—**1**, Crema, C., 6.

—— - ——, Sweden.—**1**, Munthe, H., 2.

—— - ——, Yorkshire.—**0**, Sewell, J. T., 1, 2; **1**, Petch, T.; Sheppard, T., 6; **2**, British Association; Sheppard, T., 2, 3.

Coastal platforms. *See* Platforms.

Coasts.—**0**, Davis, W. M.; Jehu, T. J.; **1**, Weigelt, J., 2; **2**, Johnson, D. W.; Johnson, R. H., 2; Whitaker, W.

——, Argentina.—**0**, Witte, L.

——, British Guiana.—**2**, Case, G. O.

——, China (S.).—**0**, Schofield, W.

——, Denmark.—**1**, Jessen, A.

——, Dorset.—**0**, Prior, E. S.

——, Egypt.—**1**, Négris, P.

——, England.—**2**, Ward, E. M.

——, Finland.—**0**, Rosberg, J. E.

——, France. — **0**, La Porte, F.; Saint-Jours, B.; **1**, Briquet, A., 4–6; **2**, Dubois, G.; Ferronière, G., 2.

——, Germany.—**0**, Jækel, O., 2; **1**, Klautzsch, A., 6; Otto, T.; Schulte, L.; Wahnschaffe, F.

——, Great Britain.—**1**, Ashton, W.

——, Italy (N.W.).—**0**, Geisler, W.

——, Lancashire.—**0**, Travis, C. B., 2.

——, Mauritania.—**2**, Gruvel, A.

——, Mexico.—**0**, Wittich, E.

——, New Zealand.—**0**, Adkin, G. L.; **2**, Adkin, G. L.; Cotton, C. A.

——, Norway.—**0**, Oxaal, J., 2; Rekstad, J.

——, Pacific islands.—**0**, Davis, W. M., 3.

——, Sussex.—**0**, Ward, E. M.

——, Sweden.—**0**, Sundelin, A.

——, Victoria.—**2**, Chapman, F., 9.

——, Wales.—**2**, Ward, E. M.

——, Yorkshire.—**2**, Friend, J. N.; Sheppard, T., 11.

——, lacustrine, Canada (E.).—**0**, Spencer, J. W., 2; **1**, Kindle, E. M., 3.

——, ——, Finland-Russia. — **0**, Ailio, J.

——. *See also* Estuaries.

Coats Land (Antarctica).—**2**, Wordie, J. M., 3.

Cobalt.—**0**, United States, 6, 8; **1**, Imperial Mineral Resources Bureau, 5; **2**, Dittler, E., 3.

——, Connecticut.—**1**, Shannon, E. V., 4.

——, Ontario.—**0**, Canada, 2; **2**, Whitman, A. R., 2.

——, Queensland.—**1**, Anon., 23.

——, United States.—**2**, United States, 8, 10.

—— minerals.—**0**, Emmons, W. H.

—— sulphates.—**0**, Larsen, E. S.

Cobalt (Ont.).—**0**, Coleman, A. P., 3; Tyrrell, J. B.; Whitehead, W. L.; Whitman, A. R.; **2**, Bastin, E. S., 3; Coleman, A. P., 3; Whitman, A. R., 1, 2.

Cobaltite.—**1**, Schlossmacher, K., 2.

Cobalt-nickel-pyrite.—**2**, Vernadsky, W.

Coblenzian, Germany.—**0**, Fuchs, A.; Leppla, A.; **1**, Dahmer, G., 4; Dienst, P.; Richter, R.; Vieetor, W.

——, the term.—**1**, Maillieux, E., 5.

Cochin-China.—**2**, Jacob, C., 7.

Cockpit Country (Jamaica). — **2**, Thompson, B.

Codicote (Herts).—**0**, Sherlock, R. L., 2.

Cœlacanthidæ.—**1**, Watson, D. M. S., 2.

Cœlestine. *See* Celestite.

Cœlodus.—**2**, Erasmo, G. d', 2.

Cœlonautilus.—**0**, Jackson, J. W.

Cœloptychium.—**0**, Fritsche, H.

Cœlurosauria.—**2**, Huene, F. v., 2, 6.

Coeur d'Alene, L. (Idaho).—**1**, Davenport, R. W.

Cogne (Piedmont).—**2**, Grill, E.; Mueller, F. P., 2.

Cohoes (N.Y.).—**0**, Stoller, J. H., 2.

Cold Bay (Alaska).—**2**, Merrill, G. P., 6.

Cole Green (Herts).—**0**, Sherlock, R. L., 4.

Colemanite.—**0**, Rogers, A. F.

——, United States (W.).—**1**, Foshag, W. F., 5; **2**, Noble, L. F.

Coleoptera.—**0**, Cockerell, T. D. A., 2, 3; **1**, Lesne, P., 1, 2.

Colfontaine (Hainault).—**0**, Cornet, J., 3.

Colima volc. (Mexico).—**1**, Waitz, P.

Colla, Val (Tessin).—**2**, Mueller, F. P., 4.

Collbranite.—**1**, Shannon, E. V., 3.

Colle Montello (Venetia).—**1**, Taramelli, T., 7.

Collie (W. Austr.).—**1**, Maitland, A. G., 5.

Collingwood (N.Z.).—**1**, Ongley, M.

Collio (Lombardy).—**2**, Buelow, E. U. v., 2.

Collodion, reproductions of fossils &.—**0**, Nicolesco, C., 3; **1**, Nicolesco, C., 2–4.

Colloids.—**0**, Rovereto, G., 2; Stiny, J., 3; **2**, Gœtz, C.; Hubbard, G. D.; Searle, A. B.

Collophane.—**2**, Rogers, A. F., 5.

Colobodus.—**1**, Alessandri, G. de, 7.

Cologne (Rheinland).—**1**, Fliegel, G., 4; **2**, Fliegel, G., 2.

Colombia.—**1**, Herold, S. C.; **2**, Bauer, M., 2; Berry, E. W.; Eugster, H.; Fritzsche, C. H., 2.

——, mineral resources.—**0**, Anon., 21; **1**, Beck, E.; **2**, Hirschi, H.; Huntley, L. G.

Colorado (U.S.A.).—**0**, Atwood, W. W.; Finlay, G. I., 1, 2; Lee, W. T., 2, 4; **1**, Finlay, G. I.; Osborn, H. F., 6; **2**, Campbell, M. R.; Henderson, Junius; Lee, W. T.

—— (——), mineral resources.—**0**, Collier, A. J., 4; **1**, Winchester, D. E.; **2**, Hoskin, A. J.

—— (——), ore-deposits.—**0**, Bastin, E. S.; Haley, D. F.; Jones, E. L. *fil*., 5; Kunz, G. F.; Lee, H. S.; Loughlin, G. F., 2; United States, 4–6, 8; **2**, Bastin, E. S., 2; Simmersbach, B., 8; United States, 8, 10.

—— (——), water.—**0**, Grover, N. C., 2–5; Herron, W. H., 4; **1**, Grover, N. C., 3; **2**, Follansbee, R.; Grover, N. C., 1, 5, 6; Headden, W. P., 2.

Colorado Desert (Cal.).—**0**, Louderback, G. D.

Colorado plateau (U.S.A.).—**0**, Dake, C. L., 2.

Colorado R. basin (U.S.A.).—**0**, Grover, N. C., 2–4; **2**, Grover, N. C.

Coloration, in fossils.—**1**, Collin, L., 3; **2**, Frentzen, K., 2; Oppenheim, P., 7.

——, in geology.—**2**, Harrassowitz, H. L. F., 2.

——, in minerals.—**1**, Dœlter, C., 2; Geijer, P., 3; Jakob, J., 2; **2**, Bamberger, M.; Dœlter, C., 6; Goldschmidt, V. M., 8; Wild, G. O.

——, in rocks.—**0**, Zimmermann, E., 2; **2**, Galloway, J. J., 2; Weithofer, K. A.

Coloured earths, Lazio.—**1**, Angelis d'Ossat, G. de, 2.

Columbia R. basin (U.S.A.).—**1**, Grover, N. C., 5, 6.

Columbia valley (U.S.A.).—**1**, Bretz, J. H.

Columbite.—**0**, Tipper, G. H.; **2**, Almstrœm, G. K.; Headden, W. P., 3. *See also* Tantalite.

Colville Reservation (Wash.).—**0**, Pardee, J. T., 4.

Comanchean, Kansas.—**0**, Twenhofel, W. H.

Comarnic beds, Wallachia.—**2**, Popescu-Voiteşti, I., 8.

Combe Martin (Devon).—**2**, Evans, J. W., 5, 6.

Comendite, Kenya.—**2**, Gregory, J. W.

Comley (Salop).—**0** & **1**, Cobbold, E. S.

Como, L. area (Lombardy).—**1**, Cacciamali, G. B., 3.

Como conglomerate, Lombardy.—**2**, Repossi, E.

Comoro Is. (Indian Ocean).—**0**, Lacroix, A., 4.

Compass, geological.—**1**, Sokol, R.

Complex. *See* Igneous complex *&* Mona Complex.

Compression, jointing &.—**1**, Bucher, W. H.

Compton (Sussex).—**2**, Thomson, D. H.

Concepción (Chile).—**2**, Berry, E. W., 4.

Conchostraca.—**0**, Wright, M. C.

Concretions.—**0**, Lohest, M.; **1**, Hawkins, H. L., 2; Holtedahl, O.; Richardson, W. A., 2; Tarr, W. A.; **2**, Bartrum, J. A., 3; Bauer, M., 2; Liesegang, R. E., 2; Patton, L.; Tarr, W. A. *See also* Coal-balls *&* Septaria.

Condrodite.—**2**, Grill, E.

Condroz (Liége-Namur).—**1**, Stainier, X., 6.

Cone-in-cone structure. — **2**, Rzehak, A., 2; Tarr, W. A., 2.

Conemaugh formation, W. Virginia. —**0**, Scheffel, E. R.

Conescharellinidæ.—**1**, Waters, A. W.

Conglomerates.—**0**, Butterfield, J. A.; Hewitt, W., 3; **1**, Howchin, W., 4; Twenhofel, W. H., 2.

——, Argentina.—**1**, Bodenbender, G.

——, Basses-Pyrénées.—**1**, Lapparent, J. de, 2.

——, Belgium.—**0**, Fourmarier, P., 2; **1**, Renier, A., 2.

——, Congo Belge.—**1**, Delhaye, F.; **2**, Anthoine, R., 3.

——, Durham.—**0**, Robson, S.

——, Eritrea.—**2**, Bibolini, A.

——, Italy.—**1**, Chelussi, I., 5; Patrini, P.; **2**, Repossi, E.

——, New England.—**0**, Perkins, E. H.

——, New Zealand.—**0**, Bartrum, J. A., 5; **2**, Bartrum, J. A., 2.

——, Norway.—**0**, Vogt, T.; **2**, Holtedahl, O., 6.

——, Westmorland-Yorkshire. — **0**, Butterfield, J. A., 2; **1**, Butterfield, J. A.

——, Cambrian, Jersey.—**1**, Plymen, G. H., 2, 3.

——, diamantiferous, Brazil. — **0**, Brouwer, H. A., 3.

——, Gault, Hanover.—**2**, Pompeckj, J. F., 5.

——, reef-, Marshall Is.—**2**, Yabe, H., 3.

Conglomerates. *See also* Bonaventure conglomerate, Boulder-conglomerate, *&c.*

Congo Belge.—**0**, Asselberghs, E., 2; Fourmarier, P., 8; Passau, G., 2; **1**, Dorlodot, L. de, 3; Passau, G.; **2**, Buttgenbach, H.

—— ——, petrology.—**1**, Dorlodot, L. de, 1, 4, 5; **2**, Anthoine, R., 3; Dorlodot, L. de, 2, 3.

—— ——, stratigraphy.—**0**, Fourmarier, P., 7; Passau, G.; Richet, E.; **1**, Delhaye, F.

—— —— (W.).—**1**, Delhaye, F., 2; **2**, Delhaye, F.; Dorlodot, L. de.

—— ——. *See also* Albert, L. area, Katanga, *&c.*

Conidæ.—**2**, Vredenburg, E. W., 2.

Coniferæ.—**0**, Kræusel, R.; **1**, Florin, R.; Kræusel, R., 3; **2**, Carpentier, A.; Fraipont, C.; Jeffrey, E. C., 2.

Connecticut (U.S.A.).—**0** & **1**, Shannon, E. V., 4; **2**, Brown, J. S.

—— (——), minerals.—**0**, Shannon, E. V., 5, 6, 13; **1**, Shannon, E. V., 5; **2**, Foye, W. G.; Shannon, E. V., 6.

—— (——), Trias.—**2**, Foye, W. G., 3; Longwell, C. R., 2; Russell, W. L.

Connecticut R. basin (New England). —**2**, Foye, W. G., 2.

Constance, L. area (Germany-Switzerland).—**2**, Bœhndel, E.

Constantine (Algeria).—**1**, Blayac, J.; Savornin, J.; **2**, Dalloni, M., 5.

Contact-metamorphism.—**0**, Eakle, A. S., 2; **2**, Hess, F. L.

——-——, Alsace.—**0**, Wohlfarth, K.

——-——, Carnarvonshire.—**2**, Williams, H.

——-——, Dutch E. Indies.—**2**, Brouwer, H. A., 3–9.

——-——, Finland.—**1**, Laitakari, A.

——-——, Germany.—**0**, Milch, L.; **1**, Guerich, G.; Muegge, O., 2; Ramdohr, P.; **2**, Beger, P. J., 2.

——-——, Norway. — **2**, Goldschmidt, V. M., 1, 5.

——-——, Romania.—**1**, Bányai, J., 2; **2**, Cantuniari, S., 3.

——-——, Sardinia.—**0**, Comucci, P., 2.

——-——, Sierra Leone.—**2**, Dixey, F., 4.

——-——, S. Australia.—**1**, Browne, W. R.

——-——, Sweden.—**1**, Eckermann, H. v.

——-——, United States. — **0**, Rogers, A. F., 2; **1**, Clapp, C. H.; Smythe, D. D.; **2**, Eskola, P., 2.

——-——, Uruguay.—**2**, Walther, K., 3.

Contact-metasomatism, Norway.—**0**, Berg, G., 2.

Continental drift.—**2**, Fichot, E. ; Kœppen, W. *See also* WEGENER'S theory.

Continents.—**1**, Dacqué, E. ; Reid, H. F., 2.

——, crustal movements &.—**1**, Romieux, A. ; Suess, F. E.

——, former, S. Africa &.—**2**, Du Toit, A. L.

——, origin of.—**0**, Paréjas, E. ; **2**, Wegener, A.

——, Pre-Cambrian.—**2**, Ruedemann, R., 3.

——. *See also* Epeirogeny.

Conularia.—**2**, Dyer, W. S. ; Osswald, K.

Conulites.—**1**, Leardi in Airaghi, Z., 2.

Conulopyrina.—**1**, Hawkins, H. L., 3.

Coolac (N.S.W.).—**2**, Harper, L. F., 2.

Coolgardie (W. Austr.).—**0**, Clarke, E. de C., 6, 7 ; Maitland, A. G., 2 ; Talbot, H. W. B., 7 ; **1**, Clarke, E. de C., 3 ; Jutson, J. T., 4, 5 ; **2**, Feldtmann, F. R. ; Wilson, R. C., 2.

Cooper Limestone, Missouri. — **0**, Greger, D. K.

Coorongite, S. Australia.—**1**, Broughton, A. C.

Copal, insecta in.—**0**, Meunier, F., 2.

Copan (Honduras).—**2**, Washington, H. S., 2, 10, 11.

Copenhagen area (Denmark).—**1**, Rosenkrantz, A., 1, 2.

Copper.—**0**, Emmons, W. H. ; **1**, Hatch, F. H. ; **2**, Beutell, A., 4 ; Great Britain, 10.

——, Africa.—**2**, Launay, L. de.

——, Alaska.—**0**, Bateman, A. M., 2 ; Capps, S. R., 5 ; Chapin, T. ; Johnson, B. L., 1–5 ; Moffit, F. H., 2 ; Overbeck, R. M., 2 ; United States, 4, 5, 8 ; **1**, United States, 5, 8 ; **2**, Mertie, J. B., *fil* ; United States, 10.

——, Asia Minor.—**2**, Pilz, R., 2 ; Schmidt, C., 4.

——, Bohemia.—**2**, Stočes, B.

——, Bolivia.—**1**, Singewald, J. T. *fil.*, 2 ; **2**, Singewald, J. T. *fil.*

——, British Colombia.—**0**, Dolmage, V., 1, 2 ; **1**, Dolmage, V. ; **2**, Dolmage, V. ; Mackenzie, J. D.

——, Canada.—**0**, Canada, 2 ; **1**, Canada, 6.

——, Chile.—**0**, Yeatman, P. ; **1**, Kuntz, J. ; Œhmichen, J. ; **2**, Hendricks, J. A. ; Junghann, — ; Lindgren, W., 4 ; Marsh, R. *fil.*

——, Congo Belge.—**2**, Guillemain, C. ; Lohest, M., 2.

——, Devon.—**1**, MacAlister, D. A.

——, England.—**1**, Greenwood, H. W.

——, France.—**0**, Kerforne, F., 3 ; **2**, Kerforne, F. J.

——, Germany.—**1**, Beyschlag, F., 4 ; **2**, Beyschlag, F., 4 ; Krusch, P., 5 ; Lang, R., 6.

Copper, Jamaica.—**2**, Brunton, S.

——, Japan.—**0**, Katô, T. ; Ōhashi, R., 2 ; **2**, Ogura, T., 1, 2.

——, Lake District.—**0**, Kendall, J. D., 3.

——, Lipnik.—**2**, Pietzsch, O.

——, Manitoba.—**1**, McCann, W. S.

——, Mexico.—**1**, Wade, W. R. ; **2**, Peña, M.

——, N. America.—**0**, Simmersbach, B.

——, Ontario.—**0**, Bell, J. M.

——, Peru.—**0**, Basadre, C.

——, Poland.—**0**, Petrascheck, W., 6.

——, Queensland.—**0**, Jensen, H. I., 1, 2.

——, Salzburg.—**2**, Bœhne, E.

——, Scotland.—**1**, Wilson, G. V.

——, Shetland Is.—**1**, Flett, J. S.

——, Shropshire.—**2**, Hall, T. C. F.

——, S.-W. Africa.—**2**, Hueser, — ; Rimann, E. ; Westphal, H.

——, Sweden.—**2**, Lindroth, G. T.

——, Trentino.—**1**, Stella, A.

——, United States.—**0**, Bastin, E. S. ; Butler, B. S. ; Knopf, A., 5 ; Ransome, F. L. ; Rice, M. ; Simmersbach, B. ; Spencer, A. C. ; United States, 4–6, 8 ; **1**, Schwartz, G. M. ; Umpleby, J. B. ; United States, 1, 8 ; **2**, Black, G. F. ; Clark, C. W., 2 ; Reber, L. E. *fil.* ; United States, 8, 10, 12.

——, Ural Mts.—**2**, Simmersbach, B.

——, Valais.—**0**, Sigg, H.

——, Victoria.—**2**, Ferguson, W. H., 3.

——, W. Australia.—**0**, Talbot, H. W. B., 1, 6 ; **1**, Blatchford, T. ; Talbot, H. W. B.

——, Yunnan.—**0**, Brown, J. C., 3.

——. *See also* Chalcopyrite, Kupferschiefer, *&c.*

Copper carbonates.—**0**, Loughlin, G. F.

—— minerals.—**0**, Mennell, F. P. ; Yeatman, P.

—— sulphate.—**0**, Vogt, T., 3 ; **1**, Œhmichen, J. ; **2**, Mitchell, G. J., 2.

—— sulpho-salts.—**1**, Foshag, W. F., 4.

Coprolites.—**1**, Stauffer, C. R., 2 ; **2**, Wanner, H. E.

Coquihalla (B.C.).—**0**, Camsell, C.

Coquihalla R. area (B.C.).—**1**, Cairnes, C. E.

Coquimbo (Chile).—**2**, Simmersbach, B., 7.

Coral islands.—**0**, Suess, F. E.

—— -limestones, Barbados.—**0**, Harrison, J. B.

—— - ——, Mexico.—**2**, Wittich, E., 10.

—— -reefs.—**0**, Daly, R. A., 1, 3 ; Davis, W. M. ; Moscheles, J., 3 ; Skeats, E. W., 9 ; Vaughan, T. W., 5 ; **1**, Vaughan, T. W.

Coral-reefs, Fiji.—**0**, Davis, W. M., 4; Foye, W. G.

—— - ——, Louisiade Archipelago.—**2**, Davis, W. M., 6.

—— - ——, Samoa.—**0**, Mayor, A. G.; **1**, Chamberlin, R. T., 2; **2**, Davis, W. M., 4.

—— - ——, Schouten Is. (D.E.I.).—**2**, Feuilletau de Bruyn, W. K. H.

—— - ——, Devonian, Belgium.—**1**, Maillieux, E., 3.

—— - ——, formation & origin.—**0**, Skeats, E. W., 8; Vaughan, T. W.; **2**, Feuilletau de Bruyn, W. K. H., 2.

—— - ——. *See also* Atolls.

Corallinaceæ.—**0**, Lemoine, P.; **1**, Lemoine, P.; Raineri, R.

Coralline Crag, Suffolk.—**1**, Sweeting, R. D.

Corbicula.—**2**, Linstow, O. v., 3.

Corbières Mts. (Aude).—**2**, Barrabé, L.; Bertrand, L., 2; Durand, J. F., 2.

Corbula.—**2**, Vincent, E.

Cordierite-rocks, S.-W. Africa.—**2**, Wagner, P. A., 2.

—— - schists. *See* Schists.

Cordilleras (Argentina).—**2**, Behrendsen, O.; Gerth, H., 1, 3.

—— (Colombia).—**2**, Eugster, H.

——. *See also* Andes.

Córdoba (Argentina).—**1**, Bodenbender, G.; Schmieder, O.; **2**, Castellanos, A.; Ugolini, R.

Córdoba (Spain).—**1**, Anthoine, R.; Carbonell, A.; Joly, H.

Cork.—**0**, Ussher, R. J.

Cormophyta.—**1**, Arber, E. A. N., 2.

Cornella (Vict.).—**2**, Easton, J. G.

Cornetite.—**1**, Hutchinson, A.; **2**, Cesàro, G.; Schœp, A., 10.

Corneto (Lazio).—**0**, Meli, R., 4.

Cornus.—**2**, Knowlton, F. H.

Cornwall.—**0**, Bonney, T. G.; **1**, Davison, E. H., 2; Lewis, W. S.; **2**, Davison, E. H., 2; Woodward, B. B., 2.

——, Devonian.—**1**, Asselberghs, E., 8; Evans, J. W., 2.

——, mineral resources.—**0**, Collins, H. F.; Davison, E. H., 1, 2; Dewey, H., 2; Fern, J. B.; **1**, Davison, E. H.; Dewey, H.; McPherson, G.

——, Pliocene.—**1**, Milner, H. B.; **2**, Milner, H. B., 2.

——, veinstones.—**0**, Davison, E. H., 3; **2**, Davison, E. H.

Cornwallis valley (N.S.).—**2**, Churchill, F. C.

Corocoro (Bolivia).—**2**, Singewald, J. T. *fil.*

Corona, minerals.—**0**, Sederholm, J. J.

Correlation, stratigraphic.—**0**, Cushman, J. A., 4; **1**, Goldman, M. I., 2; **2**, Dachnowski, A. P.; Kiær, J.; Vaughan, T. W., 4, 6.

Corrèze (France).—**0**, Couégnas, J.; **2**, Mouret, G., 1, 2.

Corrugations, structure.—**2**, Miller, W. J., 2.

Corsica.—**1**, Castelnau, P.; Hollande, D., 2; Maury, E.; **2**, Hollande, D.; Maury, E., 1, 2.

Corsicana (Tex.).—**0**, Matson, G. C., 4.

Corstorphine (Edinburgh).—**0**, Tait, D., 2.

Corténo (Lombardy).—**2**, Azzini, F.

Cortlandtite, Japan.—**1**, Watanabé, M.

Corundophilite.—**0**, Shannon, E. V., 11; **2**, Shannon, E. V., 4.

Corundum.—**2**, Cesàro, G., 2; Johnsen, A., 9; Veit, K.

——, Madagascar.—**2**, Lacroix, A., 3.

——, Mysore.—**0**, Rao, L. S.

——, Transvaal.—**1**, Hall, A. L.

——, United States.—**1**, McKinstry, H. E., 2; **2**, Gordon, S. G., 3.

——, in garnet-rock, Ligurian Apennines.—**1**, Repossi, E., 13.

Corundum-rocks, Odenwald. — **0**, Klemm, G., 2, 5.

—— - ——, Uruguay.—**2**, Walther, K., 3.

Corymboporidæ.—**0**, Canu, F., 2.

Cosia valley (Lombardy).—**1**, Brunati, R.

Cosmacanthus.—**0**, Davidson, P.

Cosmochelys.—**0**, Andrews, C. W., 3.

Cosmogony.—**1**, Guébhard, A., 1, 3.

Cosna (Alaska).—**0**, Eakin, H. M., 1, 4.

Costa Rica.—**0**, Sears, J. D.; **2**, Branson, E. B.

Coteau des Prairies (U.S.A.).—**2**, Leverett, F.

Côte-d'Or (France).—**0**, Chaput, E.; Depéret, C., 3; **2**, Brepson, F.; Chaput, E., 2; Derône, J.

Cotencher (Neuchâtel).—**0**, Musy, M.; **2**, Dubois, A.; Lagotala, H., 2.

Côtes-du-Nord (France).—**0**, Kerforne, F., 2; **1**, Bézier, T., 3, 4; Kerforne, F., 4; **2**, Daniel, L.; Kerforne, F. J., 1, 2.

Cotteswold Hills.—**0**, Gray, J. W.; **1**, Richardson, L., 2.

Cotunnite.—**0**, Russell, A., 2; **1**, Meunier, S.

Coupe de Jaujac (Ardèche).—**1**, Anderson, T.

Couvinian, Belgium.—**2**, Asselberghs, E., 2.

Coventry (Warwicks).—**0**, Eastwood, T.

Cracks. *See* Mud-cracks.

Crag. *See* Coralline Crag.

Cranbrook (W. Austr.). — **1**, Feldtmann, F. R., 2.

Crania-limestone, Denmark. — **1**, Rosenkrantz, A., 2.

Cranstal. *See* Point Cranstal.

Crassatellopsis. — **1**, Spriestersbach, J., 2.
Crassostrea.—**2**, Douvillé, H., 3.
Craters, Ardèche.—**1**, Anderson, T.
——, Esthonia.—**2**, Linstow, O. v.
——, Lazio.—**2**, Cumin, G., 2.
——, Nicaragua.—**2**, Sapper, K.
——, S. Australia.—**2**, Fenner, C. N.
——. *See also* Pan.
Crau d'Arles (Bouches-du-Rhône).—**2**, Zurcher, P.
Craven (Yorks).—**2**, Garwood, E. J., 2.
Cray R. area (Kent).—**2**, Brown, E. E. S.
Creazzo (Venetia).—**2**, Kranz, W.; Oppenheim, P.
Creedite.—**1** & **2**, Foshag, W. F., 3.
Creep.—**2**, Fourmarier, P., 4; Preston, H. *See also* Solifluction & Surface creep.
Crefeld (Rheinland).—**1**, Hœppner, —.
Crenilabrus.—**1**, Brunati, R., 2.
Cretaceous.—**0**, Nowak, J.; **2**, Gregory, J. W., 2; Hawkins, H. L., 2; Salfeld, H.
——, Alabama.—**1**, Semmes D. R.
——, Alaska.—**1**, Eakin, H. M.; Moffit, F. H.
——, Albania.—**0** & **2**, Bourcart, J.
——, Alberta.—**0**, Dowling, D. B.; **1**, Dowling, D. B.; Rose, B.; Slipper, S. E.
——, Angola.—**2**, Gregory, J. W., 2.
——, Arabia.—**1**, Kober, L.
——, Argentina.—**0**, Schiller, W.; **1**, Roth, S.; Windhausen, A.; **2**, Doello-Jurado, M.; Fritzsche, C. H.; Wilckens, O., 2; Windhausen, A., 1, 2.
——, Asia (W.).—**0**, Douvillé, H., 4.
——, Asia Minor.—**0**, Fliegel, G., 2; Frech, F., 2; Oppenheim, P., 5; Wolff, W., 3.
——, Australia (E.).—**1**, Dun, W. S.
——, Austria.—**0**, Ampferer, O., 10; Sander, B., 7; Spengler, E., 3; **1**, Spitz, A.; **2**, Ampferer, O., 5; Friedl, K.; Schœning, F.; Trauth, F.
——, Bavaria.—**2**, Cornelius, H. P., 7; Kluepfel, W., 3.
——, Belgium.—**0**, Cornet, J., 4; **1**, Stainier, X., 3; **2**, Bataille, L., 2; Cornet, J., 1–4; Schellink, F., 1, 2; Stamp, L. D., 3, 7.
——, Bolivia.—**2**, Berry, E. W., 19.
——, Brandenburg.—**0**, Hucke, K.; **1**, Klautzsch, A., 5; **2**, Linstow, O. v., 2.
——, British Columbia.—**1**, Brock, R. W., 2; Dolmage, V., 2; Mackenzie, J. D., 2; McLearn, F. H., 2; Schofield, S. J.; Stewart, J. S.
——, Brunswick.—**1**, Harbort, E., 2, 3.
Cretaceous, Buckinghamshire. — **0**, Booth, W. H.
——, Carpathians.—**1**, Teisseyre, W.
——, Caucasus.—**1**, Bonnet, P., 2.
——, Chile.—**2**, Brueggen, J.
——, Colorado.—**0**, Finlay, G. I.; Lee, W. T., 2, 4.
——, Czechoslovakia.—**0**, Woldřich, J.; Zahálka, C.; **1**, Kulcsár, K., 2; Lóczy, L. v. *fil.*, 2; Roth von Telegd, K., 2; Vigh, J., 2; **2**, Seemann, F.; Zahálka, B., 1, 2; Želízko, J. V.
——, Danzig.—**1**, Jentzsch, A., 5.
——, Denmark.—**1**, Milthers, V., 2, 3, 7, 9; Nielson, K. B.; **2**, Ravn, J. P. J.
——, Dutch E. Indies.—**0**, Abendanon, E. C.; **1**, Krol, L. H.; Loth, J. E.; **2**, Baumberger, E., 2; Van Es, L. J. C.; Wanner, J., 3.
——, E. Prussia.—**1**, Jentzsch, A., 5; Kaunhowen, F.
——, Egypt.—**0**, Arldt, T.; Stromer, E., 2; **1**, Douvillé, H., 3; Hume, W. F., 7; Range, P., 2; **2**, Moon, F. W.
——, England.—**1**, Lamplugh, G. W., 5; **2**, Kitchin, F. L.
——, Europe (Central).—**1**, Linstow, O. v., 10; **2**, Petrascheck, W., 3.
——, France.—**0**, Cornet, J., 4; Dollfus, G. F., 6; Kerforne, F., 6; Kilian, W., 4, 5; Moret, L., 2; Termier, P., 1, 6; Zahálka, C.; **1**, Bourgeat, F. E.; Dollé, L.; Douvillé, H., 13, 21; Gosselet, J.; Grossouvre, A. de, 2; King, W. B. R.; Lapparent, J. de; Lory, P., 1, 2; Pruvost, P., 2; **2**, Corroy, G., 2, 3; Ganichaud, B.; Kilian, C. C. W., 4; Lemoine, P., 2; Moret, L., 2.
——, French W. Africa.—**0**, Guillaume, —; **1**, Blayac, J.; Dalloni, M., 1, 2; Ehrmann, F.; Gillet, S.; Savornin, J.; **2**, Fourmarier, P., 8; Gentil, L., 5; Jodot, P.; Joleaud, L., 5.
——, Germany (N.W.).—**0**, Lœscher, W.
——, Greece.—**1**, Renz, C., 1, 2.
——, Hanover.—**2**, Gœbel, F.
——, Heligoland.—**1**, Stolley, E., 1, 2.
——, Hungary.—**1**, Tæger, H., 2.
——, India.—**1**, Middlemiss, C. S.; **2**, Matley, C. A., 1, 2; Spengler, E.
——, Iowa.—**2**, Tilton, J. L., 3.
——, I. of Wight.—**1**, White, H. J. O.
——, Italy. — **0**, Caffaratti, M.; Checchia-Rispoli, G.; Parona, C. F.; Schwinner, R., 3; **1**, Alessandri, G. de, 3, 4; Bellini, R., 2; Checchia-Rispoli, G.; Chelussi, I., 3, 4, 6, 7; Fucini, A.; Grzybowski, J.; Pretto, O. de; Principi, P.; Stefano, G. de, 2; Winkler, A.; **2**, Rodighiero, A.; Zenari, S.

Cretaceous, Jamaica.—**2**, Trechmann, C. T., 1, 2.
——, Kansas.—**0**, Twenhofel, W. H.; **1**, Darton, N. H.; **2**, Berry, E. W. 17.
——, Kent.—**0**, Herries, R. S.; **2**, Bromehead, C. E. N., 4; Dibley, G. E.
——, Kenya.—**2**, Dietrich, W. O., 3.
——, London area.—**2**, Woodward, H. B.
——, Macedonia.—**2**, Bourcart, J.
——, Manitoba.—**1**, Dowling, D. B., 5.
——, Maryland.—**0**, Berry, W. E., 8; Little, H. P.; Miller, B. L., 3; **2**, Gilmore, C. W., 2.
——, Mexico.—**1**, Bœse, E.; Burckhardt, C., 2; **2**, Darton, N. H.
——, Mississippi valley.—**1**, Thwaites, F. T., 2.
——, Montana.—**0**, Bowen, C. F., 2, 3; Collier, A. J.; Hancock, E. T., 1, 2; Stebinger, E., 2; **2**, Kemp, J. F., 7; Thom, W. T. *fil.*
——, Nevada,—**0**, Knopf, A., 5.
——, New Mexico.—**0**, Lee, W. T., 4; **1**, Bauer, C. M., 1, 2; **2**, Gilmore, C. W., 3.
——, New Zealand.—**0**, Marshall, P.; Speight, R., 3; Thomson, J. A., 5; Wilckens, O., 9; Woods, H.; **1**, Henderson, J., 5; Marshall, P.; **2**, Vaughan, T. W.
——, Norfolk.—**1**, Whitaker, W.
——, N. Dakota.—**0**, Stanton, T. W., 2.
——, Oklahoma.—**0**, Stephenson, L. W.; **2**, Hopkins, O. B.
——, Ontario.—**2**, Keele, J.
——, Persia.—**1**, Tipper, G. H.
——, Peru.—**0**, Douglas, J. A.; **1**, Douglas, J. A.; Dueñas, E. I.; **2**, Berry, E. W., 20.
——, Poland.—**0**, Jentzsch, A., 7; Oppenheim, P., 2; Zuber, R., 3; **1**, Jentzsch, A., 5; Teisseyre, W., 2.
——, Pomerania.—**0**, Gagel, C., 2; Jækel, O., 2, 3; **1**, Bœhm, J., 12; Keilhack, K., 5; Klautzsch, A., 4; Linstow, O. v., 8; Schulte, L., 1, 2.
——, Porto Rico.—**0**, Berkey, C. P., 2; Hodge, E. T.; Semmes, D. R.; **2**, Mitchell, G. J.
——, Prussia.—**0**, Bœhm, J., 7; **1**, Kuhlmann, L.; Schrœder, H., 3, 4.
——, Queensland.—**0**, Dunstan, B.
——, Rheinland.—**1**, Kirchberger, M.
——, Romania.—**0**, Lóczy, L. v. *fil.*; Muecke, K. v.; **1**, Jekelius, E., 1–3; Nopcsa, F.; Papp, K. v., 4; Vadász, M. E., 4; Wachner H.; Zalányi, B., 4; **2**, Langué, O. K.; Macovei, G., 2; Nopcsa, F.; Popescu-Voiteşti, I., 8.
Cretaceous, Saskatchewan.—**1**, Dowling, D. B., 5.
——, Schleswig-Holstein.—**1**, Ernst, W.
——, Scotland (N.W.).—**0**, Lee, G. W.
——, Silesia.—**1**, Kuehn, B.; Michael, R., 1, 2.
——, S. Africa.—**1**, Spath, L. F.; **2**, Harger, H. S.; Rogers, A. W., 2; Schwarz, E. H. L., 2.
——, S. America (W.).—**2**, Fritzsche, C. H., 2.
——, S. Dakota.—**0**, Darton, N. H., 4; Stanton, T. W., 2.
——, S. Rhodesia.—**0**, Newton, R. B.
——, Spain.—**0**, Kindelan, V.; Palacios, P.; **1**, Fallot, P., 2, 3; Gavala, J.; Pérez-Cossio, L.; **2**, Joly, H., 3.
——, Suffolk.—**2**, Boswell, P. G. H., 10, 11.
——, Surrey.—**0**, Whitaker, W.; **1**, Stamp, L. D., 4; **2**, Butler, G. W.; Stamp, L. D., 2.
——, Sweden.—**0**, Munthe, H.; Wiman, C., 3; **2**, Trœdsson, G. T.
——, Switzerland.—**0**, Buxtorf, A.; Christ, P.; Heim, Arnold; Jeannet, A.; Lagotala, H.; Lugeon, M.; **1**, Lory, P.; Rabowski, F.; Staub, R., 11; **2**, Arbenz, P.; Heim, Albert, 3; Mollet, H.; Nolthenius, A. B. T.
——, Tanganyika.—**2**, Reck, H., 5.
——, Tatra Mts.—**1** & **2**, Passendorfer, E.
——, Tennessee.—**0**, Berry, E.W., 12; Wade, B.
——, Texas.—**0**, Stephenson, L. W.; **2**, Berry, E. W., 16; Hopkins, O. B.
——, Tibet.—**0**, Douvillé, H., 3.
——, Turkey.—**0**, Wolff, W., 3.
——, United States.—**0**, Berry, E. W., 2, 10; Clark, W. B., 2; **1**, Bascom, F., 2; **2**, Stanton, T. W., 2.
——, Venezuela.—**2**, Schlagintweit, O.
——, Weald.—**0**, Lamplugh, G. W., 2.
——, Westphalia.—**0**, Kuhlmann, L.; **1**, Bærtling, R., 4; Haack, W., 3.
——, Wiltshire.—**1**, Bradley, A. G.
——, Wyoming.—**0**, Hancock, E. T., 3, 4; Hewett, D. F., 4; Wegemann, C. H.; **1**, Hancock, E. T.; Schultz, A. R.; Wieland, G. R., 2.
——, Yorkshire.—**2**, Bisat, W. S.
——, Yugoslavia.—**0**, Bukowski, G. v.; **1**, Kerner, F. v., 1, 2; Kormos, T.; Poljak, J.; **2**, Koch, F.
——, coal.—**1**, Stevenson, J. J.; **2**, Donath, E.
——, rocks dredged from English Channel.—**2**, Lemoine, P.
——. *See also* Aptian, Flysch, *&c.*

Cretaceous-Eocene boundary. — **0**, Douvillé, H., 8 ; **1**, Douvillé, H., 17 ; Matthew, W. D., 2 ; Seward, A. C., 2.

Cricetanæ.—**2**, Schaub, S.

Crimea.—**2**, Sedeltschikov, W.

Crinoid-limestones, Belgium.—**1** Dorlodot, J. de ; Stainier, X.

Crinoidea.—**0** & **1**, Springer, F. ; **2**, Deecke, W., 3 ; Grabau, A. W., 3.

——, Carboniferous.—**0**, Butts, C., 1, 2 ; Holtedahl, O., 3 ; Ulrich, E. O. ; Wright, J. ; **1**, Benson, W. N., 2 ; **2**, Greene, G. K. ; Morningstar, H.

——, Cretaceous.—**2**, Howchin, W.

——, Culm.—**1**, Weigelt, J.

——, Devonian.—**0**, Butts, C. ; Charlesworth, J. K. ; Dunbar, C. O. ; Wanner, J. ; **1**, Dahmer, G., 2 ; Dunbar, C. O. ; Lieber, H. ; Spriestersbach, J. ; Springer, F., 2 ; **2**, Greene, G. K. ; Mansuy, H., 3 ; Reed, F. R. C., 2 ; Springer, F.

——, Eocene.—**2**, Fabiani, R., 8.

——, Jurassic.—**0**, Butler, B. S. ; **1**, Douvillé, H., 3.

——, Lias.—**1**, Hauff, B. ; Tilmann, N., 2.

——, Ordovician.—**0**, Clark, T. H. ; **2**, Greene, G. K.

——, Permian.—**1**, Wanner, J., 2.

——, Silurian.—**0**, Butts, C.

——, Trias.—**0**, Butler, B. S. ; **1**, Jaworski, E.

——, nomenclature.—**0**, Wanner, J., 2 ; **2**, Schmidt, W. E.

Cristobalite.—**1**, Andersen, O. ; Ramdohr, P. ; Rogers, A. F., 1, 2 ; **2**, Muegge, O., 5 ; Ramdohr, P. ; Rogers, A. F., 3.

Croajingolong (Vict.).—**0**, Herman, H., 4.

Croatia (Yugoslavia).—**0**, Kadić, O. ; **1**, Anon. ; Kadić, O., 1, 2 ; Kormos, T. ; Salopek, M. ; Treitz, P., 2 ; Vogl, V., 2, 4 ; **2**, Tućan, F.

—— (——), stratigraphy.—**1**, Kadić, O., 3 ; Koch, F., 1, 2 ; Poljak, J. ; Vogl, V., 1, 5 ; **2**, Koch, F.

Crocidolite, S. Australia.—**1**, Jack, R. L., 2, 5.

Crocodile R. area (Transvaal).—**1**, Wagner, P. A., 4 ; **2**, Wagner, P. A.

Crocodilia.—**2**, Joleaud, L., 4 ; Mook, C. C., 3, 5.

——, Cretaceous.—**0**, Clark, W. B., 2 ; **2**, Gilmore, C. W., 2.

——, Eocene.—**0**, Gilmore, C. W. ; **2**, Mook, C. C., 7, 8.

——, Lias.—**1**, Hauff, B.

——, Miocene.—**0**, Fourtau, R., 2.

——, Neogene.—**2**, Joleaud, L., 2.

——, Oligocene.—**1**, Seidlitz, W. v. ; **2**, Del Vecchio, C. ; O'Harra, C. C. ; Schlosser, M., 3.

——, Pliocene.—**0**, Boulenger, G. A. ; Joleaud, L., 2.

Crocodilia, skull. — **2**, Mook, C. C., 1, 2, 4, 6, 9.

Crocodilus.—**2**, Mook, C. C., 1, 5, 8, 9.

Croham Hurst (Surrey).—**2**, Davies, G. M.

Croix-de-Fer (Haute-Savoie). — **0**, Lugeon, M., 5.

Cromer (Norfolk).—**1**, Freudenberg, W. ; Moir, J. R., 4–6 ; **2**, Moir, J. R.

Cromlechs, Stirlingshire.—**0**, Stark, J.

Crookwell (N.S.W.).—**2**, Harper, L. F., 5.

Cröslin (Pomerania).—**1**, Klautzsch, A., 4 ; Linstow, O. v., 8.

Cross-bedding, fold-mountains &.—**2**, Cloos, H.

Crossopterygii.—**0**, Stensiœ, E. A., 2 ; **2**, Woodward, A. S., 2.

Crossotheca.—**2**, Round, E. M.

Crouy-sur-Ourcq (Seine-et-Marne).—**1**, Charpiat, R.

Crow Mountain (N.S.W.).—**2**, Morrison, M., 7.

Crumlin (Antrim).—**1**, Cole, G. A. J., 3 ; Fletcher, L.

Crush-breccia. *See* Breccias.

Crussol, Mt. (Ardèche).—**2**, Riche, A.

Crustacea.—**2**, Deecke, W., 2 ; Grabau, A. W., 3.

——, Cambrian.—**0**, Rothpletz, A.

——, Coal Measures.—**1**, Pruvost, P., 6.

——, Cretaceous.—**0**, Thuma, F.

——, Devonian.—**0**, Leidhold, C., 2.

——, Eocene.—**2**, Fabiani, R., 8.

——, Jurassic.—**2**, Van Straelen, V., 4.

——, Oligocene.—**2**, Fabiani, R., 8.

——, Pleistocene. — **0**, Vaughan, T. W., 5.

——, Tertiary.—**0**, Vaughan, T. W., 5.

——, Trias.—**0**, Trauth, F.

——. *See also* Cirripedia, Decapoda, *&c.*

Cryolite.—**0**, United States, 5, 6, 8 ; **2**, United States, 9, 11, 13.

Cryophyllite.—**1**, Asch, W.

Cryphæus.—**1**, Richter, R.

Cryptodira.—**1**, Stefano, G. de, 7, 8.

Cryptogams. — **2**, Kidston, R., 2 ; Scott, D. H.

Cryptovolcanic structure.—**1**, Bucher, W. H., 3.

Cryptozoön.—**0**, Rothpletz, A. ; **1**, Howchin, W., 3. *See also* Pseudo-*Cryptozoön* structure.

Crystal Palace exhibition.—**0**, Bromehead, C. E. N., 2.

Crystal-angles.—**0**, Wherry, E. T., 3 ; **1**, Wherry, E. T. ; **2**, Rinne, F., 1, 12.

—— -cavities, in granite.—**2**, Doss, B., 2.

—— -classes.—**2**, Tertsch, H.

—— -edges.—**2**, Johnsen, A., 10.

—— -faces.—**0**, Broome, B. ; **2**, Johnsen, A., 10.

—— -forms.—**1**, Koller, P. ; Veen, A. L. W. E. v. d. ; **2**, Milch, L.

Crystal-structure.—**0**, Barker, T. V.; Boone, W. T.; Bragg, W. L.; Canac, F.; **1**, Koller, P., 4; Schœnflies, A.; Tertsch, H.; Walker, W. T.; **2**, Bragg, W. H., 2; Bragg, W. L.; Johnsen, A., 10; Kalb, G., 6; Niggli, P., 5; Rinne, F., 6.

——-——, carbon compounds.—**2**, Bragg, W. H.

——-——, carbonates.—**0**, Wyckoff, R. W. G.

——-——, chemical valency &.—**2**, Beckenkamp, J., 3.

——-——, cleavage &.—**1**, Scharizer, R.

——-——, determination.—**1**, Wyckoff, R. W. G., 3; **2**, Wyckoff, R. W. G.

——-——, hydrogen atoms in.—**1**, Aminov, G., 4.

——-——, isomorphous substances.—**2**, Rinne, F., 9.

——-——, models.—**0**, Whitlock, H. P., 2; **2**, Born, M.; Muegge, O., 3; Spangenberg, K., 2.

——-——, molecules &.—**2**, Fock, A.

——-——, röntgenometry &.—**2**, Gross, R., 3.

——-——, space-groups &. — **1**, Wyckoff, R. W. G.; **2**, Johnsen, A., 7; Niggli, P., 3; Weber, L., 2.

——-——, X-rays &.—**2**, Beckenkamp, J.; Rinne, F., 4.

Crystal-symmetry.—**1**, Beckenkamp, J., 2; **2**, Niggli, P., 4.

—— -systems.—**0**, Wherry, E. T., 2; **1**, Beckenkamp, J.; Niggli, P.; **2**, Beckenkamp, J., 4.

Crystalline limestones. *See* Limestones.

—— schists. *See* Schists.

Crystallization. — **2**, Beutell, A.; Bowen, N. L., 3; Bruhns, W.; Campbell, J. M., 4; Moressée, G., 2; Nacken, R.; Ray, R. C.

——, igneous & metamorphic rocks.—**1**, Vogt, J. H. L., 3; **2**, Cornelius, H. P., 4; Vogt, J. H. L.

——. *See also* Recrystallization.

Crystallization-differentiation. — **0**, Bowen, N. L., 3.

Crystallographic notation.—**2**, Hilton, H.

Crystallography.—**1**, Stœber, F.; **2**, Dana, E. S.

Crystals.—**0**, Canac, F., 3; Gaudefroy, C.; Grout, F. F.; Smith, G. F. H.; **1**, Spencer, L. J., 3; Tertsch, H.; **2**, Berberich, P.; Born, M.; Eitel, W., 2; Goldschmidt, V. M., 4; Johnsen, A., 12; Muegge, O., 17; Slawson, C. B., 2.

——, drawing of.—**0**, Palache, C., 3; Porter, M. W.; **1**, Weber, L., 2. **2**, Slawson, C. B.

——, gnomonic projection. — **0**, Palache, C., 2, 4.

Crystals, growth.—**0**, Miers, A.; **2**, Becker, G. F.; Kalb, G., 4, 6; Nacken, R.

——, interference.—**2**, Ehringhaus, A., 2; Gall, O.

——, measurement.—**0**, Bascom, F.; Palache, C.; **1**, Palache, C.; Parsons, A. L.; **2**, Woyno, T. J.

——, optical properties.—**0**, Bœke, H. E.; Canac, F., 2; **1**, Berek, M., 2; Hilton, H.; Keeley, F. J.; Liebisch, T., 2, 3; Niggli, P., 3; Rubens, H.; Weber, L.; **2**, Johnsen, A., 17; Raman, C. V.

——, polarization.—**2**, Cheshire, F.; Tutton, A. E. H.

——, polymorphism &.—**2**, Brauns, R., 12; Muegge, O., 13.

——, refraction in.—**1**, Ehringhaus, A., 1–3; Raman, C. V.; Wenzel, A.

——, translation-gliding.—**2**, Johnsen, A., 3, 18.

——. *See also* Mixed crystals *&* Pseudo-crystals.

Cserhát (Hungary).—**1**, Noszky, E.

Ctenochasma.—**0**, Broili, F.

Ctenosaurus.—**2**, Huene, F. v.

Cuba.—**0**, Roig, M. S.; Suárez Murias, E. R., 1, 2; **1**, Vaughan, T. W.

——, Jurassic. — **0**, Brown, B.; O'Connell, M., 3; Roig, M. S., 2.

——, ore-deposits.—**0**, Harder, E. C., 2; **1**, Burchard, E. F., 1, 2.

Cud Hill (Glos).—**1**, Upton, C.

Cuenca (Spain).—**1**, Gomez, J. R.

Cugnon (Luxembourg). — **1**, Asselberghs, E., 6.

Culebra Is. (W. Indies).—**0**, Vaughan, T. W., 4.

Culicidæ.—**2**, Edwards, F. W., 2.

Culm, Germany.—**1**, Hueffner, E.; Kranz, W., 2; Weigelt, J.; Zimmermann, E., I., 1, 2; **2**, Andrée, K., 3

——, Maine-et-Loire.—**1**, Carpentier, A., 3.

——, Silesia (Czechosl.).—**2**, Kettner, R., 2.

——, Spitsbergen.—**0**, Stensiœ, E. A.

Cumberland.—**0**, Holmes, A., 8; Kendall, J. D., 3; Melmore, S.; Walther, P.; **2**, Dixon, E. E. L.; Gilligan, A., 2.

——, Carboniferous.—**0**, Smith, B., 2; **1**, Smith, B., 2; Earle, K. W.; **2**, Earle, K. W.; Edmonds, C.

——, iron.—**0**, Kendall, J. D., 1, 4; **1**, Atkinson, J. B.; Goodchild, J. H.; Jones, A. A.; Kendall, J. D., 1–3.

——. *See also* Lake District.

Cumberland Falls (Ky.).—**0**, Merrill, G. P., 5, 9; Miller, A. M., 4; **2**, Merrill, G. P., 2, 3.

Cummingtonite.—**2**, Carstens, C. W., 2.

Cuneo (Piedmont).—**0**, Franchi, S.

Cupressinoxylon.—**0**, Fritel, P. H., 3 ; **1**, Jeffrey, E. C., 3 ; **2**, Colani, M., 2.
Cupric potassium chloride.—**1**, Ehringhaus, A.
Cuprite.—**2**, Gruehn, A.
Cuprodescloizite.—**2**, Pufahl, O.
Cupruranite.—**1**, Bellini, R., 3.
Cureghem (Brabant).—**1**, Halet, F.
Curite.—**1**, Schœp, A.
Currabubula (N.S.W.).—**0** & **1**, Benson, W. N., 2.
Cuselite, Saxony.—**1**, Beger, P. J.
Cushing (Okla.).—**0**, Beal, C. H.
Cuyamaca (Cal.).—**2**, Hudson, F. S.
Cyanite.—**2**, Buttgenbach, H.
Cyathoseris.—**1**, Oppenheim, P., 2.
Cycadeoidea.—**1** & **2**, Wieland, G. R.
Cycadophyta.—**1**, Carpentier, A., 7.
Cycles. *See* Erosion cycles *&* Sedimentation cycles.
Cyclopidius.—**1**, Thorpe, M. R., 2.
Cyclostomi.—**2**, Deriuguin, C.
Cynidiognathus.—**2**, Haughton, S. H., 2.
Cynodontia.—**0**, Watson, D. M. S.
Cypræidæ.—**1**, Vredenburg, E.
Cyprine.—**2**, Lewis, J. V., 2 ; Shannon, E. V., 15.
Cypris-beds, Bohemia.—**2**, Liebus, A., 2.
Cyrena-beds, Poland.—**0**, Jentzsch, A., 7.
Cyrenaica (N. Afr.).—**0**, Fabiani, R., 8 ; Stefanini, G., 1, 2 ; **2**, Crema, C.
Cyrtoma.—**1**, Das-Gupta, H. C.
Cystoidea.—**0**, Fœrste, A. F., 8, 9.
——, Ordovician.—**0**, Born, A. ; Clark, T. H., 1, 2 ; Reed, F. R. C. ; **1**, Raymond, P. E., 3 ; **2**, Greene, G. K. ; Mansuy, H., 3.
——, Silurian.—**0**, Butts, C. ; **2**, Greene, G. K.
Czarnikau (Poland).—**1**, Korn, J., 6.
Czarnohora (Carpathians).—**0**, Pavlovski, S.
Czechoslovakia.—**0**, Horváth, B. v. ; Lóczy, L. v. ; Petrascheck, W. ; Timkó, E., 2 ; **1**, Cole, G. A. J., 5 ; **2**, Matoušek, O.
——, geological survey.—**0**, Tietze, E. E. A., 4, 6, 7, 9, 11 ; **2**, Purkyně, P. R. C., 1, 2.
——, mineral resources.—**2**, Anon., 20 ; Jahn, J. J.
——. *See also* Bohemia, Moravia, *&c.*

D

Dahllite.—**1**, Bœggild, O. B., 2.
Dakota flora.—**0**, Berry, E. W., 10.
Dakota sandstone, United States (W.) —**0**, Twenhofel, W. H., ; **2**, Stanton, T. W., 2.
Daleiden (Eifel).—**1**, Richter, R.
Dalmania.—**2**, Heritsch, F., 3.
Dalmanites - beds, Sweden. — **0**, Trœdsson, G.
Dalmatia (Yugoslavia).—**0**, Bukowski, G. v. ; Kerner, F. v., 2, 4, 7, 12, 14 ; Lange, E. ; **2**, Cumin, G. ; Kerner, F. v., 2.
—— (——), mineral resources.—**0**, Crema, C. ; Kerner, F. v., 5, 6, 8–11 ; **1**, Crema, C., 8, 9 ; Kerner, F. v., 2.
Dalradian, Banff-Perth.—**1**, Read, H. H.
Dam-sites.—**2**, Du Toit, A. L., 3 ; Stremme, H.
—— - ——, Colorado.—**0**, Atwood, W. W.
—— - ——, New South Wales.—**0**, Harper, L. F., 4.
—— - ——, New Zealand.—**1**, Adkin, G. L. ; Henderson, J.
—— - ——, W. Australia.—**0**, Clarke, E. de C., 15.
Danburite.—**2**, Kratzert, J.
Danco Land (Subantarctica).—**2**, Tyrrell, G. W.
Dandenong (Vict.).—**2**, Whitelaw, O. A. L.
Danian, Basses-Pyrénées.—**0**, Lapparent, J. de ; **1**, Welsch, J.
——, Denmark.—**0**, Nielsen, K. B., 2 ; **1**, Nielsen, K. B., 2, 3 ; Rosenkrantz, A., 2.
——, Egypt.—**2**, Oppenheim, P., 6.
——, Palestine.—**0**, Blanckenhorn, M.
——, Sweden.—**1**, Nielsen, K. B., 3.
Dankmarshausen (Thuringia). — **0**, Naumann, E.
Danube R.—**2**, Antipa, G. ; Jassoy, A.
Danubite.—**2**, Mauritz, B.
Danzig Free State.—**1**, Jentzsch, A., 5 ; Linstow, O. v., 10 ; Milthers, V. ; Stremme, H. ; **2**, Stremme, H., 2.
Darent R. area (Kent).—**1**, Hutchinson, G. E.
Darfur (A.-E. Sudan).—**1**, Lynes, H.
Dargaville (N.Z.).—**2**, Ferrar, H. T., 5.
Dark Corner (N.S.W.).—**0**, Morrison, M., 4.
Darling Range (W. Austr.).—**0**, Clarke, E. de C., 2 ; Woolnough, W. G.
Dartford Heath (Kent).—**0**, Leach, A. L., 4.
Dartmoor.—**0**, Hodgson, T. V. ; Worth, R. H.
Darwin, C., biography.—**2**, Spengel, J. W.
——, coral-reef theory.—**0**, Moscheles, J., 3.
Dasycladaceæ. *See* Siphoneæ verticillatæ.
Datchworth (Herts).—**0**, Sherlock, R. L.
Datolite.—**0**, Kœchlin, R. ; Shannon, E. V., 12 ; **1**, Shannon, E. V., 9 ; **2**, Shannon, E. V., 5, 11.

Daun (Eifel).—**1**, Otten, T.

Dauphiné (France).—**1**, Kilian, W.; **2**, Kilian, C. C. W.

Daviesiella.—**2**, Jackson, J. W., 1, 2.

Davyne.—**0**, Cesàro, G.; **2**, Brauns, R., 14.

Dayiceras.—**0**, Spath, L. F., 3.

Daylesford (Vict.).—**0**, Whitelaw, H. S., 3; **2**, Baragwanath, W., 2.

Deal (N.J.).—**1**, Keeley, F. J., 2.

Débris, hydraulic-mining.—**0**, Gilbert, G. K. *See also* Rock-débris.

Debye-Scherrer diagrams. — **2**, Rinne, F., 4.

Decalcification.—**1**, Douvillé, H., 8; **2**, Segrè, C.

Decapoda, Cretaceous.—**0**, Clark, W. B., 2.

——, Eocene.—**2**, Van Straelen, V., 3.

——, Jurassic.—**2**, Van Straelen, V., 5, 6.

——, Tertiary.—**1**, Van Straelen, V., 2.

——. *See also* Brachyura *&* Macrura.

Deccan (India).—**2**, Washington, H. S., 8.

Deccan Trap series, Central Provinces.—**0**, Hallowes, K. A. K.

Decomposition, rocks.—**0**, Clarke, F. W. *See also* Weathering.

Dee R. (Scotland).—**0**, Roberts, C. H.

Dee R. basin (Scotland).—**0**, Bremner A., 3.

Deeckeite.—**2**, Sœllner, J.

Deep-sea sediments. *See* Sediments.

Deer L. area (Newfoundland).—**2**, Landell-Mills, T.

Deformation.—**0**, Bowen, N. L., 2; Schmidt, W.; **1**, Gordon, C. E.; Hobbs, W. H., 5. *See also* Caledonian deformation.

Dehydration, crystals.—**0**, Gaudefroy, C.; **1**, Grengg, R.; Merwin, H. E.

Deinosauria.—**0**, Gilmore, C. W., 6; **1**, Drevermann, F., 3; **2**, Nopcsa, F., 9; Parks, W. A., 2; Pompeckj, J. F., 4; Reis, O. M., 2; Virchow, H.

——, Cretaceous.—**0**, Gilmore, C. W.; Lambe, L. M.; Lull, R. S.; Matley, C. A., 1, 2; Nopcsa, F., 1, 8; Osborn, H. F., 9; Parks, W. A.; **1**, Ballerstedt, M., 1, 2; Gilmore, C. W., 1, 2; Kadić, O., 4; Lambe, L. M.; Lull, R. S.; Nopcsa, F.; **2**, Gilmore, C. W., 1–3; Matley, C. A.; Nopcsa, F., 1, 11; Sternberg, C. M.; Wrather, W. E.

——, Jurassic.—**0**, Huene, F. v., 2; Osborn, H. F., 9; **1**, Osborn, H. F., 6; **2**, Huene, F. v., 13.

——, Lias.—**1**, Andrews, C. W., 2.

——, Mesozoic.—**0**, Hennig, E., 4.

——, Tendaguru beds.—**2**, Janensch, W.

Deinosauria, Trias.—**0**, Emerson, B. K.; **2**, Broili, F.; Huene, F. v., 2, 3, 6, 9.

——, classification.—**0**, Nopcsa, F., 5; **2**, Nopcsa, F., 5, 8.

——, evolution.—**0** & **2**, Nopcsa, F., 7.

——, nomenclature.—**0**, Nopcsa, F., 4; **2**, Hennig, E., 3; Nopcsa, F., 4.

——, reconstruction.—**0**, Gilmore, C. W., 2, 3; Gregory, W. K., 2; Osborn, H. F., 10, 11; **1**, Gilmore, C. W., 3.

——, sex-differences in.—**0**, Nopcsa, F., 6; **2**, Nopcsa, F., 2, 6.

Delafossite.—**2**, Rogers, A. F.

Delaware (U.S.A.).—**0**, Clark, W. B., 3; **1**, Bascom, F., 2.

Delémont (Berne).—**2**, Keller, W. T.

Delhi Quartzite series, Bombay Presidency.—**1**, Middlemiss, C. S.

Delsberg. *See* Delémont.

Delta, British Columbia.—**1**, Johnston, W. A., 1, 2; **2**, Johnston, W. A., 1, 4.

——, Danube R.—**2**, Antipa, G.

——, Palæozoic, New Brunswick.—**0**, Matthew, G. F.

Deltaic sediments. *See* Sediments.

De Montigny, L. area (Queb.).—**0**, Mailhiot, A.

Denæa.—**2**, Fournier, G.

Denbighshire.—**0**, Acton, T. A.; Wills, L. J., 1, 2; **1**, Wills, L. J., 2; **2**, Wills, L. J.

Dene-hole, Essex.—**0**, Thompson, P.

Denmark.—**0**, Rœrdam, K.; **1**, Anon., 9; Hintze, V.; Milthers, V., 2, 7, 9; **2**, Vogt, T., 3.

——, Cretaceous.—**0**, Nielsen, K. B., 2; **1**, Nielsen, K. B., 1–3; Rosenkrantz, A., 2.

——, geological survey.—**2**, Denmark.

——, peat-bogs. — **0**, Steenstrup, Japetus; **1**, Jessen, A., 2.

——, Quaternary.—**0**, Johansen, A. C.; **1**, Milthers, V., 3–6, 8.

——, Tertiary.—**1**, Bœggild, O. B.; Gagel, C., 7; Madsen, V.; Rosenkrantz, A.

——. *See also* Bornholm, Jutland, *&c.*

Density, minerals & rocks.—**1**, Adams, L. H.; Day, A. L.; **2**, Schwarz, M. v.; Washington, H. S., 9.

Dent Blanche (Valais).—**1**, Bartholmès, F.

Dent du Midi (Valais).—**2**, Stauffacher, J., 3.

Dentalium.—**0**, Cossmann, A. E. M.

Dentaux, Grottes des (Vaud).—**2**, Guillarmod, J. J.

Dentellocaracolus.—**2**, Oppenheim, P., 10.

Denudation. *See* Erosion.

Deposition, coastal.—**2**, Johnson, R. H., 2.

——, seasonal.—**2**, Sayles, R. W., 3.

——. *See also* Sedimentation.

Deposits. *See* Æolian deposits, Sediments, *&c.*
Depression, lacustrine, Istria.—**1**, Taramelli, T., 4.
Der Pfahl (Bavaria).—**2**, Ochotzky, H.
Derbyshire.—**0**, Garnett, C. S. ; **1**, Sargent, H. C. ; Shetelig, H., 2 ; **2**, Deacon, M.
——, Carboniferous.—**0**, Sargent, H. C . ; **1**, Garnett, C. S. ; **2**, Jackson, J. W., 1, 2.
——, coalfields.—**0**, Fearnsides, W. G., 2 ; **1**, Ridsdale, H. H. ; **2**, Anon., 23 ; Great Britain, 4.
——, petroleum.—**0**, Strahan, A., 4 ; **1**, Anon., 17 ; **2**, Asselberghs, E.
Derenburg (Prussia).—**1**, Schrœder, H., 2–4.
Deserts, California.—**0**, Louderback, G. D.
——, Egypt.—**1**, Hume, W. F., 4.
——, Pleistocene, Schleswig-Holstein.—**2**, Reitz, H., 2.
Desmatosuchus.—**0** & **1**, Case, E. C.
Desmine.—**2**, Beutell, A., 6, 7.
Desmosite.—**1**, Milch, L.
Desmostylus.—**2**, Woodward, A. S., 3.
Detritus, hydraulic-mining.—**0**, Gilbert, G. K.
Deûle valley (Pas-de-Calais).—**1**, Galle, L.
Deurne-Sud (Antwerp).—**2**, Van Straelen, V., 2.
Devero, Val (Piedmont).—**1**, Bianchi, A., 1–4.
Dévoluy (Hautes-Alpes).—**1**, Lory, P., 1, 2.
Devon.—**0**, Beynon, F. ; Davison, C. ; Edge, A. B. ; Julian, H., 2 ; Lowe, H. J. ; Worth, R. H. ; **1**, Lewis, W. S. ; **2**, Evans, J. W., 4; Tilley, C. E., 2.
——, Devonian.—**0**, Reed, F. R. C., 3 ; **1**, Asselberghs, E., 8 ; Evans, J. W., 2 ; Hamling, J. G. ; **2**, Evans, J. W., 2, 5, 6.
——, mineral production.—**1**, MacAlister, D. A.
——, mineral resources.—**0**, Collins, H. F. ; Davison, E. H., 2 ; Dewey, H., 2 ; Strahan, A., 4 ; **1**, Dewey, H. ; **2**, Gordon, W. T., 2.
——, sills.—**1**, Shannon, W. G. St. J. ; **2**, Shannon, W. G. St. J., 2.
——. *See also* Dartmoor *&* Kent's Cavern.
Devon R. (Fife-Kinross).—**0**, Rhodes, J. E. W.
Devonian.—**1**, Maillieux, E., 5 ; **2**, Evans, J. W., 2 ; Schuchert, C.
——, Algeria.—**2**, Ehrmann, F., 2.
——, Alps.—**1**, Heritsch, F.
——, Ardennes.—**1**, Asselberghs, E., 8.
——, Asia Minor.—**0**, Leidhold, C., 2 ; **1**, Hueffner, E., 2.
Devonian, Belgium.—**0**, Anten, J. ; Anthoine, R. ; Cambier, R. ; Fourmarier, P., 10 ; **1**, Asselberghs, E., 1, 2, 4, 6, 7 ; Bellière, M., 2 ; Fourmarier, P., 1, 2, 7 ; Holzapfel, E. ; Leriche, M. ; Maillieux, E., 1, 3 ; Renier, A. ; Stainier, X., 4 ; **2**, Asselberghs, E., 2–6 ; Fourmarier, P., 2 ; Leblanc, E. ; Leriche, M., 3 ; Salée, A. ; Stamp, L. D., 3, 7.
——, Bohemia.—**0**, Woldřich, J., 2 ; **2**, Kodym, O.
——, Brazil.—**1**, Schiller, W.
——, Canada (W.).—**1**, Dowling, D. B.
——, Carnic Alps.—**2**, Gortani, M.
——, Cornwall.—**1**, Asselberghs, E., 8 ; Evans, J. W., 2.
——, Devon.—**0**, Reed, F. R. C., 3 ; **1**, Asselberghs, E., 8 ; Evans, J. W., 2 ; Hamling, J. G. ; **2**, Evans, J. W., 2, 5, 6.
——, Dobrogea.—**2**, Rotman, D., 2.
——, E. Prussia.—**1**, Muehlen, L. v. z.
——, Eifel.—**1**, Kirchner, H. S. ; Quiring, H., 3 ; **2**, Wedekind, R., 5.
——, Ellesmere Land.—**2**, Kiær, J., 4.
——, Europe.—**2**, Pæckelmann, W. ; Schindewolf, O. H.
——, France.—**0**, Buecking, H. ; Ferronière, G. ; Robinson, J. W. D. ; **1**, Buecking, H. ; Carpentier, A., 3 ; Collin, L. ; Kerforne, F., 6 ; Milon, Y. ; Robinson, J. W. D. ; **2**, Collin, L., 1, 4 ; Kerforne, F. J., 2, 3.
——, Franconia.—**0**, Schindewolf, O. H.
——, French Indo-China.—**0**, Mansuy, H., 8 ; **2**, Bourret, R. ; Mansuy, H., 2, 3, 8, 10, 12.
——, Germany.—**1**, Fuchs, A. ; **2**, Born, A., 5.
——, Greenland.—**1** & **2**, Koch, L.
——, Hanover.—**1**, Bode, A., 3.
——, Harz.—**1**, Bode, A., 1, 2 ; Denckmann, A., 4.
——, Hesse-Nassau.—**1**, Ahlburg, J., 1, 3, 4 ; Leppla, A., 1, 3 ; Lieber, H. ; **2**, Meyer, H. L. F., 3.
——, Illinois.—**0**, Savage, T. E. ; **2**, Savage, T. E., 2.
——, Iowa.—**2**, Norton, W. H.
——, Kentucky.—**0**, Butts, C. ; Shaw, E. W., 4 ; **2**, Jillson, W. R., 7 ; St. Clair, S., 2.
——, Lahn R. area.—**2**, Ahlburg, J.
——, Mexico.—**0**, Haack, W.
——, Minnesota.—**1** & **2**, Stauffer, C. R.
——, Missouri.—**0**, Greger, D. K. ; **1**, Branson, E. B. ; **2**, Bridge, J.
——, Morocco.—**1**, Douvillé, H., 9.
——, New Brunswick.—**1** & **2**, Matthew, G. F.
——, New York.—**0**, Chadwick, G. H., 4, 5 ; Grabau, A. W., 8 ; **1**, Eaton, H. N.

Devonian, N. America.—**2**, Stauffer, C. R.
——, N.-W. Frontier Province.—**2**, Reed, F. R. C., 2.
——, N.-W. Territories.—**1**, Kindle, E. M., 4.
——, Ohio.—**2**, Hyde, J. E.
——, Pamir.—**2**, Reed, F. R. C., 2.
——, Pembrokeshire.—**1**, Dixon, E. E. L.
——, Pennsylvania.—**0**, Peck, F. B. ; Reeside, J. B., *fil.*
——, Peru.—**0**, Douglas, J. A.
——, Portugal.—**0**, Pruvost, P.
——, Prussia.—**0**, Behr, F. M. ; **1**, Vogel, H., 1, 2 ; **2**, Winterfeld, F.
——, Pskov.—**1**, Burre, O.
——, Queensland.—**1**, Ball, L. C.
——, Rheinland.—**1**, Bærtling, R. ; Dannenberg, A. ; Fliegel, G., 4 ; Fuchs, A., 2 ; Krause, P. G., 2 ; Leppla, A., 4, 5 ; Quaas, A., 3 ; Quiring, H. ; Vieetor, W. ; Vorster, H. ; Zimmermann, E., II ; **2**, Dœring, A. ; Fliegel, G. ; Richter, M., 1, 3 ; Richter, R., 3.
——, Siegerland.—**1**, Denckmann, A.; **2**, Breddin, H.
——, Silesia.—**0**, Michael, R., 3.
——, Spitsbergen.—**0**, Stensiœ, E. A.
——, Styria.—**1**, Heritsch, F., 1–3.
——, Tennessee.—**0** & **1**, Dunbar, C. O.
——, United States.—**0**, Purdue, A. H.
——, Virginia.—**0**, Holden, R. J.
——, Westphalia.—**1**, Bærtling, R. ; Fuchs, A., 2, 3 ; Gœbel, F. ; Henke, W., 1, 2 ; Pæckelmann, W. ; Schmidt, W. E., 2 ; **2**, Bergeat, A.
——, Yunnan.—**0**, Mansuy, H., 8.
——. *See also* Coblenzian, Lenne schists, *&c.*
Devonian-Silurian boundary. — **0**, Stamp, L. D. ; **1**, Stamp, L. D., 3 ; **2**, Leriche, M., 6 ; Stamp, L. D., 4.
Dewalquea.—**2**, Johnson, T.
Dewindtite.—**2**, Schœp, A., 5, 6, 9.
Dhalbhum (Bihar & Orissa).—**1**, Murray, E. F. O.
Dharwar system, India.—**0**, Ghose, A. ; Vredenburg, E. W., 2.
Diabantite.—**0**, Shannon, E. V., 8 ; **2**, Shannon, E. V.
Diabase, Alsace.—**0**, Buecking, H.
——, Asia Minor.—**1**, Franchi, S., 2.
——, Borneo (Dutch).—**1**, Krol, L. H.
——, Dalmatia.—**2**, Cumin, G.
——, Finland.—**1**, Frosterus, B., 3.
——, French W. Africa.—**0**, Hubert, H., 5, 6 ; **1**, Hubert, H.
——, Germany.—**0**, Milch, L. ; **1**, Græfenkæmper, W. ; Kranz, W., 2 ; Lieber, H. ; Muegge, O., 1, 2 ; **2**, Born, A., 6 ; Gagel, C. ; Utendœrfer, A.
——, Jersey.—**1**, Boerlage, J. F. G.
——, Lombardy.—**2**, Azzini, F.
Diabase, Merioneth.—**1**, Cox, A. H.
——, Norway.—**1**, Bugge, C.
——, Ontario.—**2**, Burrows, A. G.
——, Pennsylvania.—**0**, Jonas, A. I.
——, Poland.—**1**, Gœtel, W.
——, Shropshire.—**2**, Hall, T. C. F.
——, Sweden.—**2**, Eckermann, H. v.
——, Tasmania.—**1**, Nye, P. B.
——, Victoria.—**0**, Teale, E. O.
——, quartz-, Pennsylvania.—**1**, Gordon, S. G., 3.
——-porphyrite, Westphalia. — **1**, Græfenkæmper, W.
Diablerets (Valais).—**0**, Lugeon, M., 3.
Diagenesis, in sediments.—**1**, Schuchert, C., 2 ; **2**, Reis, O. M.
Diagrams, rocks & rock-analysis.—**1**, Richardson, W. A., 4 ; **2**, Johannsen, A.
——. *See also* Variation-diagrams.
Diamonds.—**0**, Sutton, J. R., 1, 2 ; **1**, Sutton, J. R., 1–3 ; **2**, Johnsen, A., 6 ; Ramsdell, L. S.
——, Brazil.—**1**, Pontie, A. M. ; **2**, Rimann, E., 3.
——, Gold Coast.—**2**, Kitson, A. E.
——, S. Africa.—**0**, Kunz, G. F. ; **1**, Cornell, F. C. ; Palache, C.
——, S. Rhodesia.—**1**, Macgregor, A. M.
——. *See also* Alluvium, Pipes, *&c.*
Diaper-structure.—**2**, Lohest, M. ; Lykiardopoulo, N. A. ; Rovereto, G., 3.
Diaschistic dyke-rocks.—**2**, Milch, L., 3.
Diaspore.—**2**, Cesàro, G., 2 ; Waterkamp, M.
Diastrophism.—**0**, Chamberlin, T. C., 2 ; Stille, H., 3 ; **1**, Chamberlin, T. C., 1, 2, 4 ; **2**, Chamberlin, T. C.
——, Palæozoic.—**0**, Holtedahl, O., 15 ; Schuchert, C.
——. *See also* Megadiastrophism.
Diatomaceæ.—**1**, Amossé, A. ; Bucknall, C. ; **2**, Péragallo, M.
——, Miocene.—**1**, Péragallo, M.
——, Quaternary.—**1**, Halden, B. E., 2 ; Lozano, E. D.
——, Sweden.—**2**, Cleve-Euler, A. ; Halden, B. E., 2 ; Osvald, H.
Diatomaceous earth.—**2**, Halden, B. E., 3 ; Rasser, E. O.
—— ——, California.—**0**, Yermoloff, N.
—— ——, Kinross-shire.—**0**, Duncan, J.
—— sediments, Mexico.—**1**, Lozano, E. D.
Dibranchiata.—**1**, Buelow-Trummer, E. v., 2. *See also* Sepioidea.
Diceratherium.—**1**, Troxell, E. L., 5, 6.
Diceros.—**2**, Wuest, E., 2.
Dicotyledons.—**0**, Knowlton, F. H., 3.
Dicranograptus.—**2**, Hundt, R., 2.
Dictyonema.—**0**, Taricco, M. ; **2**, Hundt, R., 2.

Dictyonema-beds.—**2**, Scupin, H.
—— -, Liége.—**0**, Asselberghs, E.
Dictyonosteus.—**0**, Stensiœ, E. A., 2.
Dictyophyllum.—**2**, Thomas, H. Hamshaw.
Dictyospongidæ.—**0**, Clarke, J. M.
Dicynodon.—**2**, Broom, R.
Didymotis.—**2**, Sommermeier, L.
Diemtigtal (Berne). — **1**, Rabowski, F.
Diersburg (Baden).—**2**, Ziervogel, H.
Diestian, Belgium-France. — **1**, Lorié, J. ; **2**, Van Straelen, V., 2.
Diez (Nassau).—**2**, Meyer, H. L. F., 3.
Differentiation.—**0**, Bowen, N. L., 2 ; Rastall, R. H. ; **1**, Alcock, F. J., 6 ; Du Toit, A. L., 2 ; **2**, Milch, L., 3.
——, crystallization-.—**0**, Bowen, N. L., 3.
——. *See also* Magmatic differentiation.
Diffusion.—**2**, Liesegang, R. E., 4.
——, mineralization &.—**0**, Whitman, A. R.
——, in silicate melts.—**1**, Bowen, N. L.
Dighton conglomerate, New England.—**0**, Perkins, E. H.
Digswell (Herts).—**0**, Sherlock R. L., 4.
Dimetrodon.—**0**, Gilmore, C. W., 5 ; Huene, F. v., 2.
'Dimpling,' in granite.—**1**, Jutson, J. T., 2.
Dinailurictis.—**2**, Helbing, H., 2.
Dinant basin (Belgium).—**1**, Maillieux, E.
Dinaric Alps. *See* Alps.
Dinarides, Alps &.—**2**, Termier, P., 4.
'Dinasstein.'—**2**, Muegge, O., 5.
Dinocochlea.—**2**, Woodward, B. B.
Dinornis.—**0**, Marshall, P., 2.
Dinosauria. *See* Deinosauria.
Dinotheca.—**2**, Stechow, E.
Dinotherium.—**0**, Dietrich, W. O. ; **1**, Andrews, C. W., 3 ; **2**, Airaghi, C., 2.
Diopside.—**1**, Bianchi, A., 3 ; Miller, W. J., 3 ; **2**, Buttgenbach, H. ; Johnsen, A., 7 ; Schumoff-Deleano, V. ; Uhlig, J.
—— -rock, Finland.—**1**, Laitakari, A.
—— - ——, Styria.—**2**, Stiny, J.
Dioptase.—**1**, Ehringhaus, A., 2 ; Henglein, M. ; Zambonini, F., 2 ; **2**, Buttgenbach, H.
Diorite, Antarctica.—**0**, Bodman, G.
——, Channel Is.—**1**, Boerlage, J. F. G.
——, Congo Belge.—**1**, Grosse, E.
——, Czechoslovakia.—**0**, Kretschmer, F. ; Želízko, J. V., 4.
——, Germany.—**0**, Klemm, G., 11 ; **2**, Kalb, G., 2.
——, Lombardy.—**1**, Repossi, E., 11.
——, Norway.—**2**, Goldschmidt, V. M., 6, 10.
Diorite, Tierra del Fuego.—**0**, Bodman, G.
——, Vosges.—**1**, Buecking, H.
——, gabbro-. *See* Gabbro-diorite.
——, quartz.-, Prussia.—**2**, Fromme, J., 3.
——, —— -, Sweden.—**1**, Holmquist, P. J., 10.
——, quartz-mica-, S. Australia.—**1**, Browne, W. R.
—— -porphyrite, Vosges.—**1**, Buecking, H.
Dip.—**1**, Mead, W. J. ; **2**, Lugeon, M., 2.
——, determination.—**0**, Hewett, D. F., 3 ; Palmer, H. S. ; **1**, Longwell, C. R., 2 ; Sokol, R. ; **2**, Smith, W. S. T., 2.
Dip needle, stratigraphy &.—**2**, Aldrich, H. R.
Diplocaulus.—**1**, Mehl, M. G.
Diplocynodon.—**1**, Seidlitz, W. v.
Diplodon.—**2**, Wanner, H. E.
Diplopora.—**0**, Pia, J. v., 3.
Dipnoi.—**0**, Stromer, E.
Diptera.—**0** & **1**, Cockerell, T. D. A., 2 ; **2**, Edwards, F. W., 2 ; Meunier, F.
Dipterocarpoxylon.—**0**, Colani, M.
Disintegration. *See* Weathering.
Dislocations.—**1**, Quiring, H., 6 ; **2**, Nowak, E., 5.
——, Germany.—**1**, Rinne, F. ; **2**, Grupe, O. ; Haarmann, E., 2.
Dismal Swamp (Va.).—**0**, Osbon, C. C.
Dispersion, double refraction.—**1**, Ehringhaus, A., 3.
Disthene.—**0**, Anten, J., 3 ; Klemm, G., 6.
District of Columbia (U.S.A.).—**0**, Clark, W. B., 3 ; **2**, Washington, H. S.
Ditomyinæ.—**1**, Edwards, F. W.
Divining-rod.—**0**, Ellis, A. J. ; **1**, Beyschlag, F., 5 ; Brégi, L. ; Taylor, G. ; Walther, J., 2 ; **2**, Cloos, H., 2 ; Kranz, W., 7 ; Schmidt, A.
Dix R. (Ky.).—**0**, Fœrste, A. F., 2.
Dix, Val des (Valais).—**0**, Lencewicz, S. ; **1**, Boissier, R.
Dixenite.—**1**, Flink, G. ; Wherry, E. T., 3.
Djambi (Sumatra).—**0**, Dieckmann, W.
Djebel Slata (Tunis).—**2**, Fourmarier, P., 8.
Djebel Zeit (Egypt).—**2**, Mrazec, L., 14.
Doberdó, L. (Istria).—**1**, Taramelli, T., 4.
Dobrogea (Romania).—**2**, Antipa, G. ; Cantuniari, S., 4 ; Macovei, G., 4, 7 ; Murgoci, G. ; Pascu, R., 1, 5.
—— (——), geology.—**0**, Pompeckj, J. F., 7 ; **2**, Cantuniari, S., 2 ; Macovei, G., 3, 8 ; Murgoci, G., 5, 7 ; Pascu, R., 2, 3 ; Rotman, D.

Dobrogea (Romania), igneous rocks. —**0**, Cădere, D.; **2**, Cantuniari, S., 1, 3; Rotman, D., 2.
—— (——), stratigraphy.—**2**, Macovei, G., 2, 5, 6.
Dobsina (Slovakia).—**1**, Rozlozsnik, P., 2.
Dogger, Basel.—**2**, Leuthardt, F., 1, 2.
——, Dutch E. Indies.—**0**, Sœrgel, W.; **2**, Jaworski, E., 3.
——, Germany.—**1**, Grupe, O., 8; Schmierer, T., 3.
——, Haute-Savoie.—**1**, Paréjas, E.
Dogger Bank (North Sea).—**1**, Whitehead, H.
Döhlen (Saxony).—**2**, Schœnfeld, G.
Dolatocrinus.—**1**, Springer, F., 2.
Dôle (Jura).—**1**, Bourgeat, F. E., 1, 2.
Dôle, la (Vaud).—**0**, Lagotala, H.
Dolerite, Carnarvonshire.—**2**, Williams, H.
——, Devon.—**2**, Shannon, W. G. St. J., 2.
——, Fife.—**2**, Balsillie, D.
——, Hesse.—**1**, Blanckenhorn, M., 4; Pfisterer, H.
——, Otago.—**2**, Grange, L. I.
——, Palestine.—**1**, Fuchs, E.
——, Sierra Leone.—**1**, Dixey, F., 4.
——, S. Africa.—**0**, Du Toit, A. L., 2; **1**, Du Toit, A. L., 2, 5; Rogers, A. W., 2.
——, uralitic, S. Australia.—**1**, Browne, W. R.
——. *See also* Metadolerite *&* Trachydolerite.
Dolgelley (Merioneth).—**0**, Cox, A. H., 4; **1**, Cox, A. H.
Dolinas. *See* Swallow-holes.
Dolium.—**0**, Vredenburg, E. W., 4.
Doller valley (Alsace).—**0**, Schnæbele, E.
Dolomieu, D., biography.—**2**, Lacroix, A.
Dolomite.—**0**, Adams, S. F.; Skeats, E. W., 9; **1**, Adolf, G.; Koller, P.; Leitmeier, H.; **2**, Adolf, G.; Gœtz, C.
——, Dalmatia.—**0**, Lange, E.
——, Engadin.—**0**, Spitz, A., 10.
——, France (N.E.).—**0**, Benecke, E. W.
——, Germany.—**0**, Scupin, H.; **2**, Glatzel, E., 2.
——, Lombardy.—**1**, Repossi, E., 3.
——, Luxemburg (Duchy).—**2**, Goetz, C.
——, Missouri.—**0**, Tarr, W. A.
——, Namur.—**2**, Moressée, G.
——, Norway.—**1**, Oxaal, J.; **2**, Holtedahl, O., 9.
——, Rhine Valley.—**0**, Werveke, L. v., 16.
——, Slovakia.—**0**, Pia, J. v., 2; **1**, Lóczy, L. v., *fil*, 2.
——, S. Australia.—**0**, Tilley, C. E., 3.
Dolomite, S.-W. Africa.—**2**, Schneiderhœhn, H.
——, S. Rhodesia.—**0**, Molyneux, A. J. C.
——, Tyrol.—**1**, Kerner, F. v., 3.
——, chemistry of.—**0**, Rothrock, A.; **1**, Everman, I.; Merwin, H. E., 2; **2**, McKay, L. R.
——, as refractories, Great Britain.—**0**, Lamplugh, G. W., 35; Thomas, Herbert H., 2.
Dolomites (Trentino-Venetia). — **1**, Sacco, F., 6; **2**, Dal Piaz, G., 4.
Dolomitization.—**0**, Behr, F. M.; **1**, Lapparent, J. de, 4; **2**, Parsons, L. M.
Domes.—**2**, Albertson, M.
——, Liége.—**1**, Fourmarier, P., 9.
——, United States.—**0**, Collier, A. J., 5; **2**, Fath, A. E.; Powers, S.
——. *See also* Salt-domes.
Don R. area (Russia).—**2**, Chirvinski, P.
Don valley (Yorks).—**1**, Haworth, J.
Doncaster (Yorks).—**0**, Corbett, H. H.
Donetz basin (Ukraine).—**2**, Kessler, P., 2.
Doonfoot (Ayrsh.).—**0**, Tyrrell, G. W.
Dopplerite.—**2**, Tideswell, F. V.
Dordogne (France).—**1**, Shetelig, H., 2; **2**, Reverdin, L.
Dore, Mont-. *See* Mont-Dore.
Dorion (Ont.).—**1**, Tanton, T. L.
Dorset.—**0**, Prior, E. S.; Strahan, A., 4; **1**, Buckman, S. S., 3; **2**, Buckman, S. S., 3; Lang, W. D., 2. *See also* Purbeck, Isle of.
Dortmund (Westphalia).—**1**, Franke, F.
Doryphorosaurus.—**2**, Hennig, E., 3; Nopcsa, F., 4.
Double refraction. *See* Refraction.
Doubs (France).—**1**, Buxtorf, A., 3; **2**, Charpiat, R.; Fournier, E. *See also* Jura Mts.
Doubs R. (France-Switzerland).—**1**, Buxtorf, A., 4; **2**, Buxtorf, A., 1, 3.
Douro R. area (Spain).—**2**, Roman, F., 2.
Downs.—**1**, Marriott, R. A. *See also* North Downs *&* South Downs.
Downtonian, Norway.—**2**, Kiær, J., 3.
——, Shropshire.—**1**, Stamp, L. D.
——, Worcestershire.—**1**, Anon., 3.
Dozyia.—**0**, Bœhm, J., 2.
Drachenwand (Salzburg).—**0**, Geyer, G., 5.
Drag-folding, Alabama.—**1**, Dale, T. N.
Drainage, Alps.—**1**, Luetschg, O.
——, India (N.).—**0**, Pilgrim, G. E.
——, Lower Austria.—**1**, Hassinger, H.
——, New Zealand.—**0**, Adkin, G. L., 2.
——, Philippine Is.—**2**, Schenck, H. G.

Drainage, United States.—**1**, Stout, W., 1, 2; **2**, Jillson, W. R., 4.

——, artificial, Edinburgh.—**0**, Tait, D., 2.

——, ——, New Zealand.—**0**, New Zealand, 3; **2**, New Zealand, 6.

——, former, Wiltshire.—**1**, Varney, W. D.

——, sub-surface, W. Australia.—**0**, Aurousseau, M.

——. *See also* Watershed.

Drebkau (Brandenburg).—**1**, Clausnitzer, —, 2.

Dreikanter.—**0**, Ampferer, O., 9; Pfannkuch, W.

Dreissensia.—**1**, Douvillé, H., 22.

Drepanaspis.—**2**, Kiær, J., 4.

Dresden (Saxony).—**0**, Kampfrath, A.; Pietzsch, K., 3.

Drift.—**0**, Wright, W. B., 3.

——, Anglesey.—**0**, Greenly, E.

——, Buckinghamshire.—**0**, Sherlock, R. L., 3.

——, Chiltern Hills.—**1**, Barrow, G.

——, Gloucestershire.—**1**, Gray, J. W.

——, Great Britain.—**0**, Lamplugh, G. W., 3.

——, Hertfordshire.—**0**, Sherlock, R. L., 1, 2; **2**, Culpin, B. E. L.

——, United States.—**0**, Goldthwait, J. W., 2; Kay, G. F.; Sardeson, F. W.; Williams, E. H. *fil*; **1**, Palmer, H. S., 1, 2; **2**, Leighton, M. M.

——. *See also* Gold drifts.

Drócsa (Transylvania).—**0**, Szentpétery, S. v., 1, 2.

Drôme (France).—**1**, Termier, P., 4.

Drömling (Prussia.).—**1**, Barsch, O.

Dromopus.—**0**, Lull, R. S., 3.

Dronero (Piedmont).—**1**, Pangella, G.

Drove (Rheinland).—**1**, Dannenberg, A.

Drumlins, Berne.—**1**, Nussbaum, F., 2; **2**, Nussbaum, F.

——, Finland.—**0**, Hænninen, K.

——, New York.—**0**, Upham, W., 2.

——, Sweden.—**0**, Ahlmann, H. W.

Druses.—**0**, Želízko, J. V., 8; **1**, Kœnigsberger, J., 2. *See also* Crystal-cavities.

Dry valleys. *See* Valleys.

Dryas-clay, Schleswig-Holstein. — **1**, Gagel, C., 4.

Dryophyllum.—**2**, Colani, M., 2.

Dübener Heide (Saxony).—**1**, Linstow, O. v., 5.

Dublin—**1**, Cole, G. A. J., 2; Smyth, L. B.

Duchessa Mts. (Abruzzi).—**1**, Crema, C., 4.

Dueville (Venetia).—**0**, Pellegrini, G.

Dufrenite.—**0**, Howitt, A. M., 3; **1**, Gordon, S. G.

Duftite.—**2**, Pufahl, O.

Duketon (W. Austr.).—**0**, Clarke, E. de C.

Dumfries-shire.—**0**, McRobert, R. W.

Dumortierite.—**2**, Rimann, E., 2; Wittich, E., 6, 12, 14.

Dunbeath (Caithness).—**0**, Lee, G. W., 3; Sutherland, A.

Dunderland (Norway).—**1**, Oxaal, J.

Dundry Hill (Somerset).—**2**, Thompson, W.

Dunes.—**0**, Versluys, J.; **1**, Solger, F.; **2**, Baschin, O., 1, 2.

——, Belgium.—**2**, Levy, F.

——, Ceylon.—**0**, Keilhack, K., 2.

——, Egypt.—**1**, Hume, W. F., 4.

——, Finistère.—**2**, Kerforne, F. J., 7.

——, French W. Africa.—**1**, Hubert, H.

——, Germany.—**0**, Keilhack, K., 6; **1**, Klautzsch, A., 3, 6; Korn, J., 6; **2**, Wilckens, O., 3.

——, Indiana.—**2**, Cressey, G. B.

——, Lithuania.—**1**, Hess von Wichdorff, H., 5.

——, Poland. — **1**, Korn, J., 6; Schlunck, J., 4; **2**, Lencewicz, S.

Dunkard series, Ohio-Pennsylvania. —**1**, Stauffer, C. R., 2.

Dunkelsteiner Wald (Lr. Austria).—**2**, Marchet, D.

Dunswell (Yorks).—**2**, Sheppard, T., 4.

Dunton Green (Kent).—**0**, Herries, R. S.

Duntroon (N.Z.).—**0**, Uttley, G. H.

Durain.—**2**, Sinnatt, F. S., 2; Stopes, M. C., 2.

Durance valley (S.E. France).—**0**, Blanchard, R.; **1**, Kilian, W., 7.

Durania.—**0**, Pruvost, P., 2.

'Durchsinterung.'—**2**, Liesegang, R. E., 4.

Durham.—**0**, Durham; **1**, Holmes, A., 2; **2**, Todd, J. M.

——, Permian.—**0**, Robson, S.; **1**, Holtedahl, O.; Trechman, C. T., 2.

——, Quaternary.—**0**, Trechmann, C. T.; Woolacott, D.; **1**, Woolacott, D.; **2**, Lamplugh, G. W., 2; Woolacott, D.

Dürrhennersdorf (Saxony).—**2**, Beger, P. J., 3.

Dust, falls of.—**1**, Treitz, P., 2.

——, ——, Canary Is.—**2**, Smith, W. C.

——, ——, United States.—**2**, Winchell, A. N.

——. *See also* Volcanic dust.

Dust clouds, Mexico.—**2**, Ordoñez, E.

—— whirls, W. Australia.—**1**, Jutson, J. T.

Dutch Borneo. *See* Borneo.

Dutch East Indies.—**0**, Abendanon, E. C., 2; Brouwer, H. A., 2; Van Es, L. J. C.

—— —— ——, mineral resources.—**1**, Truempy, E.; **2**, Buetz, G., 3.

—— —— ——, stratigraphy. — **1**, Jaworski, E.; **2**, Vaughan, T. W., 2.

—— —— ——. *See also* Moluccas, Rotti I., Timor, *&c.*

Dutch Guiana. *See* Guiana.
Dutch New Guinea. *See* New Guinea.
'Dutenmergel.' *See* Cone-in-cone structure.
Dutton (S. Austr.).—**1**, Jack, R. L., 5.
Dwyka tillite, Bechuanaland Protectorate.—**2**, Maufe, H. B., 2.
Dyas. *See* Permian.
Dyke-rocks.—**2**, Milch, L., 3 ; Scheumann, K. H.
——-——, Germany.—**1**, Edel, G.; **2**, Trœger, E.
Dykes.—**2**, Williams, L. B.
——, Anglesey.—**0**, Greenly, E.
——, Auckland.—**2**, Bartrum, J. A.
——, Ayrshire.—**0**, Tyrrell, G. W.
——, Bohemia.—**2**, Rosický, V.
——, Cumberland.—**2**, Gilligan, A., 2.
——, Durham.—**1**, Holmes, A., 2.
——, Germany.—**1**, Berg, G. ; **2**, Erdmannsdœrffer, O. H. ; Fromme, J., 3.
——, Leicestershire.—**1**, Richardson, W. A., 3.
——, New South Wales.—**1**, Osborne, G. D.
——, Portuguese E. Africa.—**0**, Holmes, A., 11.
——, Shropshire.—**2**, Pocock, R. W.
——, Transvaal.—**1**, Hall, A. L.
——, United States.—**0**, Crandall, A. R. ; Miller, W. J., 3 ; Shannon, E. V., 9 ; **1**, Clapp, C. H. ; Loughlin, G. F. ; **2**, Kemp, J. F., 7 ; Wandke, A.
——, Victoria.—**1**, Junner, N. R.
——, W. Australia.—**0**, Talbot, H. W. B., 5.
Dyle R. (Brabant).—**2**, Stevens, C.
Dyle valley (Brabant).—**1**, Leriche, M.
Dyrosaurus.—**2**, Joleaud, L., 4.
Dyrring, Mt. (N.S.W.).—**1**, Tchirvinsky, P.
Dysalotosaurus.—**2**, Virchow, H.
Dyscrasite, New South Wales.—**0**, Smith, G.

E

Eagle formation, Montana. — **0**, Bowen, C. F., 3.
Eakleite.—**2**, Foshag, W. F., 4.
Earth.—**0**, Keyes, C. R., 3 ; **1**, Chamberlin, T. C., 3.
——, age of.—**0**, Holmes, A. ; Sacco, F., 25 ; **1**, Gregory, J. W., 4 ; Jeffreys, H. ; Rayleigh, Lord ; Sollas, W. J., 2 ; **2**, Gregory, J. W., 5 ; Joly, J., 1, 2 ; Rayleigh, Lord.
——, chemistry of.—**0**, Clarke, F. W.; **1**, Sosman, R. B.
——, constitution of. — **2**, Sieberg, A.
——, contraction of.—**0**, Chamberlin, T. C., 2 ; **1**, Taylor, F. B., 2.
Earth, crust of.—**0**, Sacco, F., 24, 34 ; **1**, Fulda, E. ; Goodchild, J. H., 2 ; Hobbs, W. H., 4 ; Russell, H. N. ; Willis, B.
——, ——, chemistry of.—**1**, Washington, H. S. ; **2**, Crook, T. ; Washington, H. S., 6.
——, ——, circulation of. — **1**, Heawood, E. ; Tandy, E. A.
——, ——, gravity observations &.—**2**, Putnam, G. R.
—— ——, movements of. — **0**, Schneider, K. ; Zeil, G., 1–3, 6, 7 ; **1**, Romieux, A., 1, 2.
——, ——, primitive state of. — **2**, Cole, G. A. J., 3, 4 ; Jeffreys, H. ; Parkinson, J.
——, ——, tectonics of.—**1**, Abendanon, E. C. ; Burrard, S. ; Guébhard, A., 6 ; Hobbs, W. H., 5 ; Oldham, R. D., 2 ; Quiring, H., 5 ; Winterfeld, F. ; **2**, Kossmat, F., 2.
——, diastrophism of.—**1**, Chamberlin, T. C., 2 ; **2**, Chamberlin, T. C., 3 ; Jones, W. F.
——, elasticity of.—**0**, Knott, C. G.
——, evolution of.—**0**, Sacco, F., 9 ; **1**, Chamberlin, T. C., 1, 4.
——, figure of.—**0**, Bianco, O. Z. ; **1**, Kœvestligethy, R. de, 2 ; **2**, Hunter, J. de G.
——, formation of.—**0**, Chamberlin, T. C., 2 ; **2**, Crompton, H.
——, framework of.—**0**, Davis, W. M., 2.
——, gravity of.—**0**, Heim, Albert, 2.
——, heat of.—**1**, Jeffreys, H., 2 ; **2**, Sayles, R. W.
——, history of.—**0**, Holmes, A., 13 ; **1**, Abelspies, J. F. C. ; Coleman, A. P., 2 ; Dacqué, E. ; Guébhard, A. ; Linck, G., 2 ; **2**, Russo, P., 2 ; Walther, J., 2.
——, interior of.—**0**, Adams, L. H. ; Gorceix, C. ; **1**, Simmersbach, B., 2 ; **2**, Goldschmidt, V. M., 14.
——, ——, constitution of.—**0**, Lambert, W. D. ; Martin, E. A.
——, life on.—**2**, Allen, F. J. ; Dines, J. S. ; Gregory, J. W., 6 ; Macfie, R. C. ; Petrie, W. M. F.
——, metabolism in. — **2**, Goldschmidt, V. M., 16.
——, nebular theory &.—**2**, Coleman, A. P., 4 ; Joly, J., 3 ; Wright, W. B.
——, planetesimal hypothesis &.—**0**, Daly, R. A., 7.
——, rotation of.—**0**, Keyes, C. R., 2 ; **1**, Quiring, H., 5.
——, self-compression of.—**2**, Chamberlin, T. C.
——, shape of.—**0**, Berroth, A.
——, surface of.—**0**, Dacqué, E. ; **1**, Goodchild, J. H., 2 ; Novo y Chicarro, P. de ; Reid, H. F., 2 ; Suess, F. E. ; **2**, Baschin, O., 4, 5.
——, tilting of.—**1**, Marriott, R. A., 2.

Earth-movements.—**0**, Pollack, V.; Suess, F. E.; Walther, J.; Weithofer, K. A.; **1**, Haarmann, E.; Machatschek, F.; Suess, F. E.
—— - ——, Africa (E.).—**0**, Ball, J.; Fourmarier, P., 8; Gregory, J. W., 5; **2**, Gregory, J. W.
—— - ——, California. — **1**, Lawson, A. C.; Louderback, G. D.
—— - ——, Dutch E. Indies.—**0**, Brouwer, H. A., 2.
—— - ——, Germany. — **0**, Kampfrath, A.; Linstow, O. v., 2; Pietzsch, K., 3; **1**, Grupe, O., 6; Schmidt, M.
—— - ——, Palæozoic, N. America (E.).—**0**, Schuchert, C.
—— - ——, isostasy &.—**2**, Reid, H. F.; Willis, B.
Earth-pillars, Piedmont. — **1**, Pangella, G.
Earthquakes.—**0**, Hayden, H. H.; Sacco, F., 34; **1**, Martinelli, G.; Montessus de Ballore, F. de, 2; Navarro-Neumann, E. M.; **2**, Lumbier, M. M.; Oldham, R. D., 2, 5.
——, Abyssinia.—**1**, Palazzo, L.
——, Africa (E.).—**2**, Krenkel, E., 2.
——, Algeria.—**2**, Brives, A., 5.
——, Alps (N.E.).—**0**, Heritsch, F., 4.
——, Arctica (European).—**2**, Tams, E., 3.
——, Assam.—**1**, Stuart, M., 3.
——, Bali I.—**0**, Kemmerling, G. L. L.
——, Belgium. — **1**, Capiau, H.; Renier, A., 3; **2**, Lohest, M., 4; Renier, A., 2.
——, Bismarck Archipelago. — **0**, Johnson, G. J.
——, Carniola.—**1**, Heritsch, F., 4–6.
——, Carpathians (W.).—**0**, Heritsch, F., 4.
——, China.—**1**, Davison, C., 5; **2**, Omori, F., 2.
——, Devon.—**0**, Davison, C.
——, Europe (N.W.).—**2**, Tams, E., 3.
——, France.—**1**, Glangeaud, P., 4; Kerforne, F., 2, 8; **2**, Chevallier, A.; Guébhard, A., 4.
——, Germany.—**0**, Kampfrath, A.; Pietzsch, K., 3; **2**, Lais, R., 2; Lutz, C. W.
——, Italy.—**0**, Friedlænder, I.; **1**, Agamennone, G., 1–4; Cavasino, A., 1–3; Italy; Labozzetta, R.; Martinelli, G., 2–4; Oddone, E., 2, 3; **2**, Agamennone, G., 1, 2; Fiore, O. de; Monnet, P.; Oldham, R. D., 3.
——, Japan.—**0**, Omori, F., 1, 3; **1**, Davison, C., 6; **2**, Omori, F., 3, 4; Yasuda, C.
——, New Zealand.—**1**, Cotton, C. A.; Henderson, J., 5.
——, Norway.—**0**, Kolderup, C. F.
Earthquakes, Pamir.—**2**, Oldham, R. D., 4; Sckpilko, —.
——, Portugal.—**1**, Pereira de Sousa, F. L.
——, Spain (S.E.).—**1**, Kindelan, V.
——, Sweden.—**2**, Sahlstrœm, K. E.
——, Tunis.—**2**, Joleaud, L.
——, Uganda.—**1**, Wayland, E. J., 16.
——, United States (W.).—**0**, Taber, S., 2; **1**, Smith, W. D.; Taber, S., 2.
——, W. Indies.—**0**, Reid, H. F., 1, 2; Taber, S.; **2**, Taber, S.
——, bibliography.—**1**, Agamennone, G., 5; Montessus de Ballore, F. de.
——, centres of.—**0**, Harboe, E. G.
——, engineering works &.—**1**, Oddone, E.
——, frequency of.—**1**, Oldham, R. D., 3; **2**, Davison, C., 3.
——, history of.—**1**, Anon., 50; Mesnard, E.
——, intensity of.—**2**, Davison, C., 2.
——, isostasy &.—**2**, Tams, E.
——, variations of latitude &.—**0**, Zeil, G., 5.
——, magmatic.—**1**, Branca, W., 3.
——, noises.—**1**, Heritsch, F., 4.
——, prediction & recording of. — **1**, Guzzanti, C.
——, propagation of.—**2**, Omori, F.
——, rainfall &.—**0**, Zeil, G., 4.
——, recording of.—**0**, Hecker, O., 2; **2**, New Zealand, 14, 15; United States.
——, tectonic.—**2**, Zeil, G., 3.
——, volcanoes &.—**1**, Davison, C., 4.
——, in 1916.—**1**, Agamennone, G., 6.
——. *See also* Microseisms, Seismic waves, *&c.*
Earths. *See* Black earths, Cave-earth, *&c.*
Easington (Durham).—**0**, Woolacott, D.; **2**, Lamplugh, G. W., 2; Woolacott, D.
Easneye (Herts).—**2**, Sherlock, R. L., 3.
East Anglia.—**1**, Harmer, F. W.; **2**, Osborn, H. F., 7.
East Cape area (N.Z.).—**0**, Marshall, P., 3.
East Flanders (Belgium). —**1**, Halet, F., 3; Stevens, C.
East Friesland (Germany).—**1**, Gagel, C., 9.
East Indies.—**0**, Deprat, J.; Vredenburg, E. W., 6; **1**, Brouwer, H. A.
—— ——, sea-bottom off.—**1**, Molengraaff, G. A. F.
—— ——. *See also* Dutch East Indies, Indo-Australasia, *&c.*
East Pool mine (Cornwall).—**2**, Davison, E. H., 2.
East Prussia (Germany). — **0**, Harbort, E.; Jentzsch, A., 4; **1**, Jentzsch, A., 5; Kaunhowen, F., 3; Klautzsch, A.; Meyer, E., 2, 4.

East Prussia (Germany), amber.—**0**, Black, G. F. ; **1**, Kaunhowen, F.

—— —— (——), boulders. — **0**, Jentzsch, A., 3 ; **1**, Jentzsch, A. ; Muehlen, L. v. z.

—— —— (——), coasts.—**1**, Klautzsch, A., 6 ; Otto, T. ; Tornquist, A.

—— —— (——), Pleistocene. — **0**, Krause, P. G., 2 ; **1**, Hess von Wichdorff, H., 4 ; Jentzsch, A., 4 ; Kaunhowen, F., 2, 5 ; Menzel, H., 2 ; Meyer, E., 5 ; Tornau, F., 1–3.

—— —— (——), Quaternary. — **0**, Hess von Wichdorff, H. ; Jentzsch, A., 8 ; **1**, Hess von Wichdorff, H., 1, 6 ; Kaunhowen, F., 4 ; Klautzsch, A., 2, 3 ; Krause, P. G. ; Meyer, E., 1, 6 ; Milthers, V.

East Sooke (Vancouver I.).—**0**, Cooke, H. C.

Easter Saphook (Aberdeensh.).—**1**, Read, H. H., 2.

Ebbegebirge (Westphalia).—**1**, Fuchs, A., 2 ; Schmidt, W. E., 2.

Ebbor (Somerset).—**0**, Reynolds, S. H., 2.

Ebingen (Württemberg).—**1**, Schmierer, T., 4.

Ebro basin (Spain).—**1**, Born, A.

Echellite.—**0**, Bowen, N. L.

Echigo (Japan).—**2**, Hayasaki, I., 3 ; Iki, T.

Echinanthus.—**1**, Airaghi, C., 2 ; **2**, Lambert, J., 2.

Echinocorys.—**1**, Bœhm, J., 8 ; **2**, Berry, E. W., 19.

Echinoderma.—**1**, Lambert, J., 2 ; **2**, Grabau, A. W., 3.

——, Devonian.—**0**, Thomas, A. O.

——, Ordovician.—**0**, Bassler, R. S.

——. *See also* Asterozoa, Blastoidea, *&c.*

Echinoid-beds, Ariège.—**2**, Dubar, G.

Echinoidea.—**0**, Bather, F. A., 2 ; Hawkins, H. L., 2, 3 ; **2**, Jackson, R. T. ; Vaughan, T. W., 5.

——, Carboniferous.—**2**, Mansuy, H., 2 ; Morningstar, H.

——, Cretaceous.—**0**, Clark, W. B., 2 ; Davey, E. C. ; Frech, F., 2 ; Gregory, J. W., 7 ; Kew, W. S. W., 2 ; **1**, Bœhm, J., 8 ; Currie, E. D. ; Das-Gupta, H. C. ; Hawkins, H. L., 1, 3 ; Lambert, J. ; Ravn, J. P. J. ; Sheppard, T., 8 ; Stefano, G. de, 2 ; **2**, Berry, E. W., 19, 20 ; Brydone, R. M. ; Cottreau, J. ; Fourtau, R. ; Koch, F. ; Lambert, J., 4 ; Mitchell, G. J. ; Oppenheim, P., 11 ; Ravn, J. P. J.

——, Culm.—**1**, Hueffner, E.

——, Eocene.—**0**, Fabiani, R., 7 ; Gregory, J. W., 7 ; Hopkins, O. B., 3 ; **1**, Airaghi, C., 2, 3 ; Castex, L. ; Vogl, V., 6 ; **2**, Bosworth, T. O. ; Fabiani, R., 8.

——, Jurassic.—**0**, Ammon, L. v. ; **1**, Douvillé, H., 3 ; Newton, R. B. ; **2**, Moutier, A.

Echinoidea, Lias.—**1**, Airaghi, C., 3 ; Tilmann, N., 2 ; **2**, Hawkins, H. L.

——, Mesozoic.—**1**, Fossa-Mancini, E.

——, Miocene. — **0**, Fourtau, R. ; Roig, M. S. ; Stefanini, G., 2 ; Vaughan, T. W., 5 ; **1**, Airaghi, C., 3, 5, 7, 13 ; Checchia-Rispoli, G., 3 ; Lupano, G. ; **2**, Daus, H. ; Stefanini, G.

——, Montian.—**2**, Lambert, J., 1, 2.

——, Neogene.—**2**, Lambert, J., 3.

——, Oligocene.—**0**, Abendanon, E. C. ; Lambert, J. ; Vaughan, T. W., 5 ; **1**, Castex, L. ; **2**, Fabiani, R., 8 ; Lambert, J., 4 ; Mitchell, G. J.

——, Palæozoic.—**1**, Swinnerton, H. H.

——, Pliocene.—**0**, Fourtau, R. ; **1**, Airaghi, C., 13 ; Bell, A. ; **2**, Dickerson, R. E., 3 ; Howe, H. V. ; Stefanini, G.

——, Tertiary.—**0**, Kew, W. S. W., 2.

Eclogite, France.—**1**, Brière, Y.

——, Piedmont.—**0**, Franchi, S., 3.

—— -amphibolite, Styria. — **2**, Heritsch, F., 6.

Economic geology. *See* Geology.

Ecuador.—**0**, Anon., 24 ; **2**, Bergt, W., 4 ; Berry, E. W. ; Eigenmann, C. H. ; Marsters, V. F., 3.

Edentata.—**0**, Stock, C., 1, 2, 4 ; **1**, Schulthess, B. ; **2**, Boule, M.

Edi (Vict.).—**0**, Howitt, A. M., 2.

Edinburgh.—**0**, Allan, R. ; Day, T. C., 2, 3 ; Tait, D., 1, 2 ; **1**, Peach, B. N.

Edmontosaurus.—**1**, Lambe, L. M.

Edmundston (N.B.).—**2**, McCann, W. S., 2.

Eem series, Germany.—**0**, Gagel, C., 6 ; Wolff, W., 2 ; **2**, Penck, A., 2 ; Wetzel, W., 5.

‘ Égéide.’—**2**, Arabu, N., 1, 2 ; Zeil, G.

Eger (Bohemia).—**2**, Liebus, A., 2.

Eggs, fossil avian.—**2**, O'Harra, C. C.

Egham (Surrey).—**0**, Monckton, H. W.

Egypt.—**0**, Arldt, T. ; Blanckenhorn, M., 2 ; **1**, Artini, E., 6 ; Hume, W. F., 1, 4, 5 ; Négris, P. ; Schuermann, E., 2 ; **2**, Barthoux, J. ; Oppenheim, P., 6.

——, igneous rocks.—**0**, Mrazec, L. ; **2**, Mrazec, L., 12, 14.

——, mineral resources.—**0**, Hume, W. F., 1–5 ; Kirsopp, J. ; Madgwick, T. G. ; **1**, Hume, W. F., 3 ; Madgwick, T. G. ; **2**, Egypt.

——, prehistory.—**1**, Seligman, C. G., 1, 2.

——. *See also* Suez, Gulf of, Sinai, *&c.*

Eibenstock (Saxony).—**0**, Pietzsch, K.

Eichberg area (Poland-Prussia).—**1**, Korn, J., 3.

Eichkogel (Lr. Austria).—**2**, Richarz, P. S.
Eifel (Germany).—**0**, Quiring, H. ; **1**, Sommermeier, L. ; **2**, Brauns, R., 10 ; **2**, Richter, R., 3.
—— (——), Devonian.—**0**, Leppla, A. ; **1**, Kirchner, H. S. ; Quiring, H., 3 ; Richter, R. ; Schulz, E. ; **2**, Wedekind, R., 5.
—— (——), volcanic rocks. — **1**, Haardt, W. ; Leppla, A., 7 ; Otten, T. ; **2**, Hopmann, P. M. ; Zaentini, W.
Eifel fault, Liége.—**1**, Fourmarier, P., 7.
—— syncline, Luxembourg.—**1**, Asselberghs, E., 6.
Eifelian, France.—**0**, Ferronnière, G. ; **1**, Ferronière, G., 2.
——, Rheinland.—**1**, Quiring, H.
Eifelocrinus.—**0**, Wanner, J., 2.
Eigg I. (Scotland).—**0**, Craig, E. H. C., 2 ; Harker, A.
Eisenkappel (Carinthia).—**1**, Canaval, R.
Eisenspitze (Tyrol).—**1**, Ampferer, O., 3.
Eiserfey (Eifel).—**1**, Sommermeier, L.
Ejectamenta, Canary Is.—**2**, Gagel, C., 2.
——, Germany.—**1**, Edel, G., 2 ; Haardt, W. ; Halfmann, G. J. ; Halfmann, H. ; Otten, T. ; Schuster, E. ; Waterkamp, M. ; **2**, Berns, A. ; Brauns, R., 1, 2, 8, 13, 14.
——, Java.—**2**, Brouwer, H. A., 8.
——, Vesuvius.—**1**, Mercalli, G., 2.
El Oro (Mexico).—**2**, Flores, T.
Elæolite-syenite. *See* Syenite.
Elasmobranchii.—**1**, Woodward, A. S., 2.
Elasmosaurus.—**1**, Bogoliubov, N. N.
Elba I. (Italy).—**0**, Meli, R.
Elbe R. (Germany).—**0**, Kurtz, —.
Elbe R. area (Germany).—**0**, Wunderlich, E.
Elbe valley (Saxony).—**0**, Kampfrath, A. ; Pietzsch, K., 2, 3 ; **2**, Lohrmann, E.
Elbingerode (Harz).—**2**, Erdmannsdœrffer, O. H.
Electrical prospecting. *See* Geophysical prospecting.
Elephant I. (S. Shetlands).—**2**, Wordie, J. M., 3.
Elephas.—**0**, Commont, V. ; Fraas, E. ; Mayet, L. ; Schlesinger, G. ; Stefanescu, S. ; **1**, Airaghi, C., 9, 10, 12 ; Mariani, E., 5, 8 ; Pontier, G. ; Sheppard, T., 7 ; Sœrgel, W. ; Studer, T. ; **2**, Dietrich, W. O., 6 ; Freudenberg, W., 3 ; Neuville, H. ; Nordmann, V. ; Reck, H., 3 ; Schlesinger, G. ; Sœrgel, W., 1–3 ; Stefanescu, S., 2.
Elevation.—**0**, Stille, H., 2 ; **2**, Œyen, P. A., 7 ; Zeil, G., 2, 3.
Elevation, Alps.—**1**, Penck, A., 2.
——, Andes.—**0**, Berry, E. W., 4 ; **1**, Berry, E. W., 5.
——, Harz.—**1**, Grupe, O., 6 ; Linstow, O. v., 2.
——, New England.—**0**, Fairchild, H. L., 1, 10.
——. *See also* Level, changes of.
Elgin (Scotland).—**0**, Taylor, W. ; **1**, Watson, D. M. S., 4.
Elk valley (B.C.).—**1**, Marshall, J. R.
Ellesmere Land (Arctica).—**0**, Holtedahl, O., 5, 6, 10; **2**, Kiær, J., 4.
Ellipsactinia.—**0**,Berckheimer, F.
Elsloo (Dutch Limburg).—**2**, Halet, F. ; Leriche, M.
Elutriation.—**0**, Baker, H. A., 2; **2**, Boswell, P. G. H., 7.
Ely (Nev.).—**0**, Spencer, A. C.
Embar formation, Wyoming.—**0**, Condit, D. D.
Emerald.—**2**, Siedel, P.
Emery.—**2**, Mueller, H. ; Walther, K., 3.
—— -rocks, Odenwald.—**0**, Klemm, G., 5.
Emilia (Italy).—**0**, Lencewicz, S., 2 ; **1**, Segrè, C. ; Zuffardi, P., 1, 2 ; **2**, Anelli, M. ; Brusoni, A., 2 ; Stefani, C. de, 2 [3].
Emilius, Mte. (Piedmont).—**0**, Sacco, F., 29.
Empire formation, Oregon.—**1** & **2**, Howe, H. V.
Emscherian, Germany.—**0**, Bœhm, J., 8 ; **1**, Bœhm, J., 5 ; Franke, F. ; Schrœder, H., 2.
Emydura.—**0**, Chapman, F., 2.
Encounter Bay area (S. Austr.).—**1**, Browne, W. R. ; Ward, L. K., 3.
Endomorphism, granite.—**2**, Lacroix, A., 3.
Engadin (Graubünden). — **0**, Ampferer, O., 8 ; Spitz, A., 6, 10 ; Wilckens, O., 2.
Engelhorn (Berne).—**1**, Arbenz, P., 3.
Engihoul (Liége).—**1**, Ostrowick, I. de R. d'.
Engineering, earthquakes &.—**1**, Oddone, E.
——, geology &.—**0**, Vaughan, T. W., 2 ; **1**, Ries, H. ; Smith, W. D., 2 ; **2**, Fox, C. S., 2.
England, borings.—**2**, Simmersbach, B., 9.
——, coasts.—**0**, Jehu, T. J. ; **2**, Matthews, E. R. ; Ward, E. M.
——, Cretaceous.—**2**, Kitchin, F. L.
——, Devonian.—**2**, Schindewolf, O. H.
——, glaciation.—**0**, Lamplugh, G. W., 3 ; **2**, Gregory, J. W., 8, 9 ; Kendall, P. F., 2.
——, mineral resources.—**0**, Strahan, A., 3, 4 ; **1**, Greenwood, H. W. ; Lamplugh, G. W., 5 ; Sherlock, R. L.
—— (E.), Quaternary.—**2**, Kennard, A. S.

England (N.), bibliography.—**0**, Sheppard, T. ; **1**, Sheppard, T., 9 ; **2**, Sheppard, T., 6.
—— (——), Carboniferous.—**0**, Bisat, W. S. ; **1**, Bisat, W. S., 4.
—— (——), geology.—**1**, Marr, J. E.
—— (S.), Eocene.—**0**, Whitaker, W., 4 ; **1**, Stamp, L. D., 5.
—— (S.W.), Pliocene.—**1**, Milner, H. B. ; **2**, Milner, H. B., 2.
—— (W.), Jurassic.—**0**, Buckman, S. S., 2 ; Richardson, L., 2.
—— (——), Silurian-Devonian boundary.—**1**, Stamp, L. D., 3.
—— (——), Tertiary & Cretaceous.—**2**, Boswell, P. G. H., 9.
——. *See also* Bedfordshire, Humber basin, *&c.*
English Channel, sea-bottom.—**2**, Charcot, J. B., 2 ; Dangeard, L. ; Kerforne, F. J., 10 ; Lemoine, P.
Enhydros.—**0**, Reis, O. M., 1, 3.
Ennerdale (Cumberland).—**2**, Dixon, E. E. L.
Enniskillen Range (Queensl.).—**2**, Jensen, H. I., 4, 5.
Enns R. area (Upper Austria).—**0**, Spitz, A., 3.
Ennstal (Styria).—**2**, Ampferer, O., 4.
Ensisheim (Alsace).—**1**, Prior, G. T., 2.
Enstatite.—**1**, Zambonini, F.
Entada.—**0**, Berry, E. W., 9.
Entebbe (Uganda).—**1**, Wayland, E. J., 15.
Entelodon.—**1**, Repelin, J., 3.
Entelodontidæ.—**0**, Troxell, E. L., 2, 3 ; **2**, Sinclair, W. J., 3, 4.
Enterprise (S. Rhod.).—**0**, Maufe, H. B.
Entre Rios (Argentina).—**0**, Frenguelli, J., 1–3.
‘ Eo-Cambrian.’—**2**, Brœgger, W. C.
Eocene.—**0**, Matthew, W. D., 2 ; **1**, Matthew, W. D. ; Rollier, L., 3 ; **2**, Berry, E. W., 11.
——, Aisne.—**0**, Morellet, L., 2.
——, Albania. — **0**, Bourcart, J. ; Nopcsa, F., 3 ; **2**, Bourcart, J., 2 ; Nowak, E., 6.
——, Alsace.—**2**, Leidhold, C.
——, Anglo - Franco - Belgian basin. —**1**, Stamp, L. D., 5.
——, Aquitaine.—**1**, Cossmann, M.
——, Arabia.—**1**, Kober, L.
——, Aral Sea area.—**2**, Lukovitch, M. T.
——, Argentina.—**2**, Doello-Jurado, M. ; Fritzsche, C. H.
——, Basses-Pyrénées.—**0**, Douvillé, H., 7 ; **1**, Castex, L. ; Lapparent, J. de, 2 ; Welsch, J.
——, Beaconsfield area.—**2**, Sherlock, R. L., 4.
——, Belgium.—**0**, Cornet, J. ; **1**, Briquet, A., 2 ; Leriche, M., 1, 4 ; Rutot, A., 4 ; Stamp, L. D., 2 ; **2**, Cornet, J., 3 ; Leriche, M., 5, 9 ; Stamp, L. D., 3, 7.
Eocene, British Columbia.—**1**, Schofield, S. J. ; **2**, Uglow, W. L.
——, Buckinghamshire.—**0**, Booth, W. H.
——, Corsica.—**1**, Hollande, D., 2.
——, Cyrenaica.—**0**, Fabiani, R., 8 ; **1**, Stefanini, G.
——, Czechoslovakia.—**0**, Vogl, V. ; **1**, Lóczy, L. v., *fil*, 2 ; **2**, Rzehak, A., 3.
——, Denmark.—**1**, Bœggild, O. B. ; Gagel, C., 7.
——, Egypt.—**0**, Hume, W. F., 3 ; **2**, Barthoux, J. ; Moon, F. W.; Oppenheim, P., 6 ; Schuermann, H. M. E.
——, England (S.).—**0**, Whitaker, W., 4.
——, Essex.—**2**, Wooldridge, S. W.
——, France (N.).—**2**, Leriche, M., 10.
——, —— (S.).—**1**, Douvillé, H., 16.
——, —— (S.W.).—**0**, Dollfus, G. F., 12 ; Repelin, J., 2.
——, French W. Africa.—**0**, Duparc, L. ; Russo, P. ; **1**, Blayac, J. ; Douvillé, H., 20 ; Hubert, H. ; Savornin, J., 1, 2 ; **2**, Joleaud, L., 5.
—— ,Germany.—**0**, Gagel, C., 2, 4 ; **1**, Linstow, O. v., 6 ; Scupin, H., 1, 2 ; **2**, Dietrich, W. O., 9 ; Haupt, O. ; Schlosser, M., 5.
——, Greece.—**1**, Négris, P., 4 ; Renz, C. ; **2**, Ktenas, A.
——, Hampshire basin.—**1**, Reid, C. ; **2**, Ord, W. T.
——, Haute-Savoie.—**1** & **2**, Moret, L.
——, Hertfordshire.—**1**, Wooldridge, S. W.
——, Ille-et-Vilaine.—**2**, Milon, Y.
——, I. of Wight.—**1**, White, H. J. O.
——, Italy.—**0**, Boden, K. ; Caffaratti, M. ; Fabiani, R., 1, 4, 5 ; Liebus, A. ; Schwinner, R., 3 ; **1**, Grzybowski, J. ; Lupano, G. ; Regè, R. ; Salmojraghi, F., 3 ; Stefani, C. de ; Stefano, G. de, 5 ; Winkler, A. ; Zuffardi, P. ; **2**, Fabiani, R., 2, 5, 8.
——, Java.—**1**, Ziegler, K. G. J.
——, Kent.—**0**, Leach, A. L., 2–4 ; Priest, S. ; Stamp, L. D., 2, 3 ; **1**, Priest, S. ; **2**, Bromehead, C. E. N., 3, 4.
——, Loire-Inférieure.—**0**, Kerforne, F., 6 ; **2**, Ganichaud, B.
——, London Basin.—**0**, Baker, H. A., 1, 2 ; **2**, Bromehead, C. E. N., 3 ; Dewey, H., 2 ; Woodward, H. B.
——, Lower Austria.—**2**, Friedl, K.
——, Lower California.—**2**, Darton, N. H.
——, Lwow.—**0**, Oppenheim, P., 2.
——, Middlesex.—**1**, Wooldridge, S. W.

Eocene, Morocco (Sp.).—**1**, Lôme, E. D. de.
——, Nigeria.—**2**, Newton, R. B.; Wilson, R. C., 4.
——, Nord.—**0**, Dubois, G., 2; **1**, Briquet, A., 2; Leriche, M., 4; **2**, Leriche, M., 7.
——, Norfolk.—**2**, Boswell, P. G. H., 4.
——, Paris Basin.—**1**, Dollot, A., 1–6; **2**, Abrard, R.; Dollot, A., 1–3.
——, Peru.—**0**, Bosworth, T. O., 2; Douvillé, H., 10; **1**, Douvillé, H., 19; **2**, Bosworth, T. O.
——, Punjab.—**1**, Preiswerk, H.
——, Rhodope Mts. area.—**2**, Petrascheck, W., 2.
——, Romania.—**2**, Grozescu, H., 5; Popeşcu-Voiteşti, I., 7; Protescu, O., 6.
——, Seine-et-Marne.—**1**, Charpiat, R.
——, Spain.—**0**, Kindelan, V.; **1**, Born, A.; Sampelayo, P. H.; **2**, Douvillé, H., 8; Faura i Sans, M., 2; Roman, F., 2.
——, Suffolk.—**2**, Boswell, P. G. H., 4, 10, 11.
——, Surrey.—**0**, Dewey, H.; Monckton, H. W.; Whitaker, W., 1, 4; **1**, Whitaker, W., 4.
——, Switzerland.—**2**, Mollet, H.; Rollier, L.
——, Tibet.—**0**, Douvillé, H., 3.
——, United States.—**0**, Berry, E. W.; Clark, B. L., 1, 2; Lee, W. T., 4; **1**, Bauer, C. M., 2; Clark, B. L.; Cooke, C. W., 1, 2; Schultz, A. R.; Semmes, D. R.; Winchester, D. E.; **2**, Dickerson, R. E., 2.
——, Yonne.—**1**, Hure, A., 2.
——, Yugoslavia.—**0**, Oppenheim, P.; **1**, Kerner, F. v.
——, rocks dredged from English Channel.—**2**, Dangeard, L.
——, sedimentation cycles. — **1**, Stamp, L. D., 6; **2**, Stamp, L. D.
——. *See also* Bartonian, London Clay, *&c.*
Eocene-Cretaceous boundary. — **0**, Douvillé, H., 8; **1**, Douville, H., 17.
Eoliths.—**0**, Dawkins, W. B.; Warren, S. H.; **1**, Moir, J. R., 8; Warren, S. H.
Eoplatanista.—**2**, Dal Piaz, G., 2.
Eovasum.—**2**, Douvillé, H., 7.
Eozoon.—**0**, Rothpletz, A.; **1**, Linck, G., 3.
Epeigné-sur-Dême (Indre-et-Loire).—**1**, Grossouvre, A. de, 2.
Epeirogeny.—**0**, Stille, H., 3; **1**, Machatschek, F.
Epiaster.—**1**, Currie, E. D.; **2**, Brydone, R. M.
Epiceratodus.—**0**, Stromer, E., 4.
Epidiorite, Victoria.—**2**, Skeats, E. W. *See also* Greenstone.
Epidosite, Westphalia.—**1**, Græfenkæmper, W.
Epidote.—**0**, Shannon, E. V., 13; Spencer, L. J.; **2**, Duparc, L.; Hawkins, A. C., 2; Shannon, E. V., 6.
—— -orthite.—**1**, Geijer, P., 3.
—— -rocks. *See* Albite-epidote-rocks.
Epidote minerals.—**1** & **2**, Eitel, W.
Epigene processes.—**1**, Schaffer, F. X.; **2**, Sœlch, J.
Eporeodon.—**1**, Thorpe, M. R., 4, 6.
Epsom (Surrey).—**0**, Dewey, H.
Epsomite.—**2**, Johnsen, A., 3, 5.
Equidæ.—**1**, Drevermann, F.; **2**, Gregory, W. K., 2.
——, Oligocene.—**0**, Buwalda, J. P., 2.
——, Pleistocene.—**0**, Clarke, J. M., 2; **1**, Latorre, A. C.; **2**, Hilzheimer, M., 2.
——, Pliocene.—**1**, Ferronnière, G.; **2**, Stock, C.
——, Quaternary.—**1**, Stefano, G. de, 3.
Equisetales.—**1**, Erdtman, G.; **2**, Jongmans, W.
Equisetites.—**1**, Erdtman, G.; **2**, Jongmans, W.
Equus.—**1**, Stefano, G. de, 3; **2**, Hilzheimer, M., 2.
Eradu (W. Austr.).—**0**, Clarke, E. de C., 15.
Erie, L. (Ont.).—**1**, Kindle, E. M., 3.
Eriphyla.—**0**, Bœhm, J., 2.
Eritrea (Africa).—**2**, Artini, E.; Bibolini, A.
Erodibility, of rocks.—**1**, Ugolini, R., 2.
Erosion.—**0**, Grabau, A. W., 10; Howorth, H. H.; Nicholson, E. D.; Rovereto, G., 3; **1**, Rovereto, G., 3.
——, Alps.—**1**, Penck, A., 2; **2**, Heim, Albert, 4.
——, Anglesey.—**0**, Greenly, E.
——, Egypt.—**1**, Hume, W. F., 4.
——, Fiji.—**0**, Davis, W. M., 4.
——, Haute-Savoie.—**1**, Kilian, W., 4.
——, Italy.—**1**, Pangella, G.; Ricchieri, G.; Sacco, F.
——, Sumatra.—**0**, Oppenoorth, W. F. F.
——, Sweden.—**1**, Frœdin, J.; Munthe, H., 2.
——, United States.—**0**, Barrell, J.; Keyes, C. R., 4; **1**, Fenneman, N. M.; **2**, Bryan, K., 2.
——, W. Australia.—**1**, Jutson, J. T., 1, 2.
——, æolian, S.-W. Africa.—**0**, Rand, R. F.
——, epigenetic.—**0**, Sœlch, J.; **1**, Schaffer, F. X.
——, fluvial.—**2**, Smoleński, J.
——, ——, Germany (S.W.). — **0**, Schuermann, E.
——, ——, New York.—**0**, Fairchild, H. L., 9.

Erosion, fluvial, platforms &.—**1**, Cvijić, J., 1–3.
——, glacial.—**0**, Frech, F. ; Hobbs, W. H., 2 ; **2**, Allix, A. ; Collet, L. W., 3 ; Quervain, A. de ; Werenskiold, W., 5.
——, ——, Alaska. — **0**, Crosby, W. O.
——, ——, Austria.—**1**, Mueller, J.
——, ——, Carnarvonshire. — **0**, Davis, W. M., 5.
——, ——, Germany.—**0**, Brueckner, E., 5 ; Deecke, W., 4 ; **1**, Linstow, O. v., 4 ; Mueller, J.
——, ——, Norway.—**0**, Reusch, H., 2 ; **2**, Reusch, H., 4.
——, lake-bottom, L. Ontario. — **1**, Kindle, E. M., 2.
——, laterite &.—**0**, Davis, W. M., 6.
——, of limestones.—**2**, Fourmarier, P., 5.
——, monadnocks &.—**0**, Behrend, F., 2.
——, pebbles &.—**0**, Hewitt, W., 3.
——, pediments &.—**0**, Bryan, K., 2.
——, 'rillensteine.'—**2**, Kumm, A.
——, scour.—**2**, Latham, E.
——, subterranean.—**0**, Zeil, G., 6.
——. *See also* Coast-erosion, Peneplains, *&c.*
Erosion cycles.—**1**, Bascom, F. ; Glangeaud, P., 3 ; **2**, Martonne, E. de, 2.
—— platforms. *See* Platforms.
Erratics, E. Prussia.—**1**, Jentzsch, A.
——, Liverpool area.—**0**, Jones, T. A., 1, 4.
——. S. Victoria Land.—**2**, Smith, W. C., 3.
——, Yorkshire.—**1**, Bevan, D. W.
Erto (Venetia).—**1**, Feruglio, E., 2.
Eruptive breccia. *See* Breccias.
—— rocks. *See* Igneous rocks.
Erxleben (Prussia). — **1**, Wieegrs [Wiegers], F.
Eryma.—**2**, Van Straelen, V., 4.
Erzgebirge (Bohemia-Saxony). — **2**, Kossmat, F. ; Seidlitz, W. v.
Erzgebirge (Slovakia).—**1**, Vitális, S.
Erzgebirge (Transylvania). — **0**, Muecke, K. v. ; Szentpétery, S. v., 1, 2 ; **1**, Szentpétery, S. v.
Escarpments.—**0**, Bury, H., 2.
——, S. Africa.—**1**, Rogers, A. W.
——, Weald.—**1**, Marriott, R. A.
Escaut R. (Nord).—**0**, Cornet, J., 4.
Eschede (Hanover).—**1**, Stoller, J.
Eschwege (Hesse).—**1**, Ramdohr, P. ; **2**, Ramdohr, P., 1, 2 ; Rose, H., 2.
Eskers, Germany.—**0**, Jentzsch, A., 2 ; Wolff, W. ; **2**, Keilhack, K., 2.
——, Great Britain.—**2**, Gregory, J. W., 8, 9 ; Kendall, P. F., 2.
——, Ireland.—**0**, Gregory, J. W., 6 ; **1**, Hinch, J. de W., 2 ; **2**, Butler, J. G. ; Hinch, J. de W.
——, Nova Scotia.—**0** & **2**, Prest, W. H.
——, Poland.—**1**, Korn, J., 2.
Eskers, United States.—**0**, Giles, A. W.; Reeves, J. R.
Esperanza (Argentina). — **1**, Frenquelli, J.
Essen (Rheinland).—**0**, Lœscher, W., 2.
Essex.—**0**, Kennard, A. S. ; Thompson, P. ; **1**, Prestwich, J. ; **2**, Thresh, J. C. ; Wooldridge, S. W.
——, prehistory.—**0**, Warren, S. H. ; **1**, Moir, J. R., 8 ; Warren, S. H. ; **2**, Morris, G.
Essexite, Baden.—**2**, Sœllner, J., 4.
Estherville (Iowa).—**0**, Merrill, G. P., 6 ; **2**, Merrill, G. P., 4.
Esthonia.—**0**, Jentzsch, A. ; **2**, Philipp, H., 2.
——, mineral resources.—**1**, Lindenbein, H. A. R., 1, 2 ; **2**, Anthoine, R., 4 ; Beyschlag, F., 11 ; Craig, E. H. C., 2 ; Doss, B.
——, Palæozoic.—**1**, Bekker, H. ; **2**, Pahlen, A. v. d. ; Scupin, H.
——. *See also* Œsel I.
Estinne-au-Val (Hainault).—**2**, Schellinck, F., 2.
Estuaries.—**2**, Shankland, E. C.
Esztergom (Hungary).—**1**, Kormos, T., 7 ; Kulcsár, K. ; Vigh, J.
Etching, minerals.—**1**, Honess, A. P. ; Koller, P. ; **2**, Boydell, H. C., 2 ; Nacken, R., 2.
Etheridgina.—**0**, Greger, D. K., 2.
Etna (Sicily).—**1**, Davison, C., 4 ; Fiore, O. de ; Papp, K. v., 2 ; Riccò, A. ; **2**, Eredia, F. ; Platania, G.
Etsch R. *See* Adige R.
Ettenhoven (Antwerp). — **2**, Hasse, G.
Eubœa I. (Greece).—**2**, Boydell, H. C.
Euganei, Colli (Venetia). — **1**, Maddalena, L., 3.
Eugyrinus.—**1**, Watson, D. M. S., 3.
Eukaby (S. Austr.).—**1**, Jack, R. L., 3 ; Ward, L. K., 4.
Eulysite, Sweden.—**2**, Eckermann, H. v.
Eunicites.—**2**, Metzger, A. A. T.
Euostrea.—**2**, Douvillé, H., 3.
Euparkeria.—**2**, Haughton, S. H.
Eupen (E. Belgium).—**1**, Holzapfel, E.
Euphotide, Valais.—**1**, Bartholmès, F.
Euphrates R.—**0**, Stevens, H.
Eurite, Haute-Vienne.—**0**, Dollfus, G. F., 3.
Europe, Eocene mammalia.—**0**, Teilhard de Chardin, P.
——, iron.—**2**, Great Britain, 25 ; Gregory, J. W., 7 ; Roesler, M.
——, mineral springs and waters.—**2**, Weber, H.
——, Palæozoic.—**0**, Born, A. ; Grabau, A. W., 9 ; **2**, Pæckelmann, W. ; Schindewolf, O. H.
——, phosphates.—**0**, Grabau, A. W., 5.

Europe, plant migration.—**1**, Boulger, G. S.
——, prehistory.—**0**, Dawkins, W. B. ; **1**, Burkitt, M. C. ; **2**, Battaglia, R. ; Burkitt, M. C. ; Macalister, R. A. S.
——, Quaternary.—**0**, Brooks, C. E. P. ; Depéret, C., 2 ; Sœrgel, W., 5 ; **2**, Dachnowski, A. P.
——, tectonics.—**0**, Wegele, H.
——, Tertiary.—**0**, Grabau, A. W., 4 ; **2**, Wenz, W., 3.
——, transgressions.—**0**, Deecke, W.
—— (Central), borings.—**0**, Zalányi, B. ; **1**, Zalányi, B., 4.
—— (——), coal.—**2**, Petrascheck, W., 3.
—— (——), Ice Age.—**0**, Székány, B.
—— (——), sands.—**0**, Treitz, P., 2.
—— (——), tectonics.—**0**, Lozinski, W. v., 2 ; **1**, Deecke, W., 2 ; Winterfeld, F. ; **2**, Born, A., 2 ; Limanovski, M., 2 ; Suess, F. E., 2.
—— (E.), folding.—**2**, Kuźniar, C.
—— (——), Quaternary.—**1**, Hausen, H.
—— (N.), Quaternary.—**0**, Odén, S., 3 ; **1**, Geinitz, E. ; **2**, Depéret, C.
—— (N.W.), earthquakes.—**2**, Tams, E., 3.
—— (——), Quaternary.—**1**, Brooks, C. E. P.
—— (——), sea-level. — **0**, Saint-Jours, B.
—— (S.E.).—**1**, Nopcsa, F., 2.
Eurypterid-horizon, New York. — **0**, Chadwick, G. H., 3.
Eurypterida.—**1**, Ruedemann, R. ; **2**, Kiær, J., 3 ; Ruedemann, R., 2.
Eusarcus.—**2**, Ruedemann, R., 2.
Eutsuk L. area (B.C.).—**1**, Brock, R. W., 2.
Evançon valley (Piedmont). — **0**, Sacco, F., 32.
Everest, Mt.—**2**, Heron, A. M., 1–3.
Everton (Vict.). — **2**, Kenny, J. P. L., 5.
Evolution.—**0**, Pelseneer, P. ; Sacco, F., 9 ; **1**, Abelspies, J. F. C. ; Dorlodot, H. de ; Petronievics, B. ; **2**, Garstang, W. ; Ruedemann, R., 5.
——, ammonoidea.—**2**, Trueman, A. E., 4.
——, anthozoa.—**1**, Raymond, P. E., 2 ; **2**, Kiær, J., 2.
——, arthropoda.—**0**, Raymond, P. E. 3.
——, aves.—**1**, Abel, O., 2.
——, deinosauria.—**0** & **2**, Nopcsa, F., 7.
——, foraminifera.—**1**, Douvillé, H., 1, 12, 18 ; **2**, Douvillé, H., 9.
——, gastropoda.—**1**, McDonald, A. I. ; **2**, Guillaume, L. ; Wenz, W., 4.
——, graptolitoidea.—**2**, Elles, G. L., 4.
——, insecta.—**1**, Chetverikov, S. S.
Evolution, lamellibranchia.—**2**, Douvillé, H., 3.
—— life.—**0**, Zeil, G., 2 ; **1**, Philippi, E. ; **2**, Boswell, P. G. H., 6.
——, mammalia.—**0**, Berry, E. W., 7
——, man.—**1**, Sera, G. L.
——, Mendelism &.—**2**, Bather, F. A., 2 ; Duerden, J. E. ; Gates, R. R.
——, mollusca.—**1** & **2**, Dickerson, R. E.
——, palæontology &.—**1**, Jackson, R. T.
——, plantæ.—**0**, Berry, E. W., 7 ; **1**, Berry, E. W. ; Scott, D. H., 2 ; **2**, Bugnon, P. ; Chandler, M. E. J., 4 ; Scott, D. H., 2.
——, proboscidea.—**1**, Osborn, H. F., 3 ; **2**, Osborn, H. F., 4, 5 ; Sœrgel, W., 1–3 ; Stefanescu, S., 3.
——, vertebrate.—**2**, Gregory, W. K.; Watson, D. M. S.
Évora (Portugal).—**1**, Pereira de Sousa, F. L.
Ewell (Surrey).—**0**, Dewey, H.
Exmoor (Devon).—**0**, Davison, C.
Exocyclica.—**2**, Hawkins, H. L.
Exogyra.—**2**, Dietrich, W. O., 3.
Expansion. *See* Thermal expansion.
Extinction-angles, crystals.—**1**, Berek, M., 2 ; Hilton, H.
Eymoutiers (Haute-Vienne). — **0**, Couégnas, J. ; Dollfus, G. F., 3.
Eypesmouth (Dorset).—**1** & **2**, Buckman, S. S., 3.
Eyre Penin. (S. Austr.).—**0**, South Australia, 3 ; Tilley, C. E., 3 ; **1**, Tilley, C. E., 1, 2.

F

Facies, Alps.—**0**, Hummel, K.
——, Nummulitic beds.—**1**, Rollier, L., 3.
Fagaceæ.—**1**, Kræusel, R., 3.
Falconara (Marche).—**0**, Segré, C.
Falkenau (Bohemia).—**2**, Liebus, A., 2.
Falkenhagen (Prussia).—**1**, Grupe, O., 8.
Falkland Is.—**2**, Baker, H. A.
Fallersleben (Hanover).—**1**, May, W.
Fallstein (Prussia).—**1**, Schrœder, H., 7.
Falster (Denmark).—**1**, Œdum, H.
Falun, Loire-Inférieure.—**2**, Ferronnière, G., 4.
Famatina, Sierra de (Argentina).—**2**, Kuehn, F.
Famennian, Liége.—**0**, Anthoine, R., 2.
Fan. *See* Alluvial fan.
Faringdon (Berks).—**0**, Davey, E. C.
Faro (Portugal).—**1**, Pereira de Sousa, F. L.
Faroe Is.—**0**, Holmes, A., 10 ; **2**, Jessen, K.
Faucille (Ain).—**1**, Lagotala, H.

Fault-blocks, mountain-building &.—**0**, Woodworth, J. B.
—— -fissures, Europe (Central).—**1**, Winterfeld, F.
—— -scarp, New Zealand.—**0**, Cotton C. A.
—— -troughs, W. Indies.—**1** & **2**, Taber, S.
Faults.—**0**, Quiring, H., 2 ; **1**, Hœfer, H. v., 3 ; Oldham, R. D., 2 ; Quiring, H., 4, 6 ; Stočes, B.
——, Belgium.—**0**, Cornet, J., 3 ; Fourmarier, P., 6, 9, 13 ; Humblet, E., 2 ; **1**, Fourmarier, P., 3, 5, 7, 8 ; Stainier, X., 6 ; **2**, Cambier, R. ; Kaisin, F., 2.
——, France.—**0**, Chaput, E. ; Couégnas, J. ; Klæhn, H. ; Werveke, L. v., 10.
——, Germany.—**0**, Quiring, H. ; Werveke, L. v., 9 ; **1**, Michael, P. ; Schmierer, T. ; **2**, Kranz, W., 8.
——, Italy.—**0**, Klebelsberg, R. v., 3 ; Spitz, A., 4.
——, Kashmir.—**0**, Middlemiss, C. S., 2.
——, Ontario.—**1**, Hobbs, W. H., 2.
——, Sweden.—**2**, Geijer, P., 2.
——, United States.—**0**, Buwalda, J. P. ; Chadwick, G. H., 2 ; Fath, A. E., 2 ; Louderback, G. D., 4, 5 ; **1**, Loomis, F. B. ; Wentworth, C. K., 2 ; **2**, Brown, J. S., 2 ; Davis, W. M., 5 ; Long, E. T. ; Russell, W. L.
——, Upper Austria.—**0**, Geyer, G., 4.
——. *See also* Block-faulting, Fractures, *&c.*
Faunas, British Pliocene-Quaternary.—**1**, Bell, Alfred.
——, Burmese Tertiary.—**1**, Vredenburg, E., 2.
——, S. American.—**1**, Loomis, F. B., 2.
——. *See also* Relict fauna.
Favosites.—**2**, Athanasiu, S. C., 10.
Faxe (Denmark).—**0** & **1**, Nielsen, K. B., 2.
Fayette (Texas).—**0**, Merrill, G. P., 3.
Fecht valley (Alsace).—**0**, Werveke, L. v., 10.
Federated Malay States.—**0**, Jones, W. R. ; **1**, Scrivenor, J. B., 1, 3, 4 ; **2**, Willbourn, E. S.
—— —— ——, geological survey.—**0**, **1** & **2**, Federated Malay States.
—— —— ——. *See also* Malaya.
FEDOROV methods.—**0**, Carrasco, E. ; Sabot, R., 1, 2.
Feldbach (Styria).—**2**, Stiny, J., 3.
Felidæ.—**0**, Thorpe, M. R. ; **2**, Eaton, G. F.
Felis.—**2**, Schmidtgen, O.
Felixstowe (Suffolk).—**2**, Boswell, P. G. H., 10, 11.
Fella R. area (Venetia).—**1**, Desio, A.
Felsberg (Odenwald).—**0**, Klemm, G., 10.
'Felsenmeer,' Odenwald.—**0**, Klemm, G., 10.
Felsite, in conglomerate.—**2**, Anthoine, R., 3.
Felsöbánya (Transylvania).—**1**, Pálfy, M. v., 6.
Felspars.—**0**, Anten, J. ; Warren, C. H. ; **1**, Alling, H. L., 2 ; Cotton, L. A. ; Elworthy, R. T. ; Imperial Mineral Resources Bureau, 6 ; **2**, Doss, B., 2.
——, Bohemia.—**0**, Želízko, J. V., 4.
——, Scotland.—**0**, Campbell, R., 2.
——, United States.—**0**, United States, 8 ; **1**, Field, V. W. ; **2**, United States, 13.
——, Victoria.—**2**, Ower, L. H.
——, aventurine.—**2**, Andersen, O., 3.
——, potash.—**0**, Boswell, P. G. H. ; **2**, Morey, G. W.
——, in rocks.—**0**, Carlson, C. G. ; Lapparent, J. de, 2 ; Shannon, E. V., 5 ; Steidtmann, E.
——, twinning.—**0**, Carrasco, E. ; Sabot, R., 3 ; **2**, Schlossmacher, K., 3.
——. *See also* Plagioclase.
Felspathoid-rock, Venetia.—**2**, Maddalena, L.
Felspathoids.—**0**, Lacroix, A.
Fenestellidæ.—**0**, Laseron, C. F.
Fenland, silt.—**0**, Hardy, F.
Fennoscandia.—**1**, Geijer, P., 4 ; Hausen, H. ; Sederholm, J. J.
——, Pre-Cambrian.—**0**, Goldschmidt, V. M., 3 ; Holmquist, P. J. ; **2**, Geijer, P., 3.
——, Quaternary.—**0**, Carlzon, C. ; Hansen, A. M. ; Hœgbom, A. G., 1, 2 ; **2**, Credner, W. ; Penck, A., 5.
—— (Central).—**0**, Sederholm, J. J., 2, 3.
Ferques (Pas-de-Calais).—**0** & **1**, Robinson, J. W. D.
Ferrazite.—**1**, Lee, T. H.
Ferretto, Württemberg.—**2**, Dietrich, W. O., 5.
Ferric chloride.—**1**, Ritzel, A.
Ferrières (Liége).—**1**, Asselberghs, E., 2.
Ferrite.—**2**, Grengg, R.
Ferroanthophyllite.—**1**, Shannon, E. V., 7 ; **2**, Shannon, E. V., 9.
Ferro-manganese.—**0**, Mackenzie, G. C., 2.
Ferwallgruppe (Vorarlberg).—**2**, Cornelius, H. P., 5.
Feuerbach (Württemberg).—**2**, Pfeiffer, W., 2.
Feuerkogel (Styria).—**2**, Diener, C., 8.
Fexhe-le Haut Clocher (Liége).—**0**, Liége.
Fez (Morocco).—**1**, Passemard, E., 2.
Fibrolite.—**0**, Spencer, L. J., 2 ; **2**, Bierbaum, G.
Fibula.—**1**, Antoine, —.

Fichtelgebirge (Bavaria).—**1**, Mieleitner, K., 1, 2 ; **2**, Laubmann, H.

Ficus.—**2**, Colani, M., 2.

Fier valley (Haute-Savoie). — **1**, Kilian, W., 4.

Fife.—**0**, Balsillie, D., 1–3 ; Macgregor, M., 2 ; Rhodes, J. E. W. ; Wright, J. ; **2**, Anon., 22 ; Balsillie, D.

Fiji Is.—**0**, Davis, W. M., 4 ; Foye, W. G. ; **2**, Wright, C. H.

Filehne (Poland).—**1**, Korn, J.

Filey (Yorks).—**2**, Sheppard, T., 11 ; Stather, J. W.

Filipstad (Sweden).—**2**, Magnusson, N. H.

Finalese (Liguria).—**0**, Sacco, F., 30.

Finistère (France).—**1**, Collin, L., 1, 2 ; Picquenard, C. ; **2**, Collin, L., 1, 4 ; Kerforne, F. J., 7 ; Picquenard, C.

Finkenberg (Rheinland).—**1**, Schuermann, E. ; **2**, Wurm, C.

Finkenwalde (Pomerania).—**0**, Gagel, C., 2 ; **2**, Kalb, G., 2.

Finland. — **0**, Anon., 29 ; Sander, B. ; **1**, Berghell, H. ; Eskola, P., 1, 2 ; Homén, T. ; **2**, Aarnio, B. ; Scheele, K. v.

——, limestones.—**0** & **1**, Laitakari, A.

——, physiography.—**0**, Ailio, J. ; Hænninen, K. ; Rosberg, J. E. ; Tolvanen, V.

——, Pre-Cambrian. — **0**, Mækinen, E. ; Wilkman, W. W. ; **1**, Frosterus, B., 3 ; Wilkman, W. W.

——, soils.—**1**, Aarnio, B., 1, 2 ; Frosterus, B., 1, 2.

—— (S.).—**0**, Jentzsch, A. ; Laitakari, A., 2 ; Ramsay, Wilhelm ; Sauramo, M.

—— (——), strand-lines.—**1**, Auer, V. ; Ramsay, W., 2, 3.

——. *See also* Åland Is.

Finmarken (Norway).—**0**, Holtedahl, O., 11, 14 ; **2**, Vogt, T., 2 ; Werenskiold, W., 2.

Finse (Norway).—**0**, Goldschmidt, V. M., 2.

Fireclays.—**0**, Scott, A. ; **2**, Stansfield, J.

——, Great Britain.—**1**, Howe, J. A.

——, United States.—**0**, Crider, A. F., 2 ; Easton, H. D. ; **2**, Parmelee, C. W.

Fischhausen (E. Prussia).—**1**, Meyer, E.

Fissuration, in rocks.—**1**, Fournier, E.

Fissures.—**0**, Walther, J. ; **1**, Hœfer, H. v. ; Wentworth, C. K.

——, Alsace.—**0**, Wagner, W.

——, Norway.—**2**, Holtedahl, O., 2.

——, Rhön.—**1**, Grupe, O., 4.

——, ‘ lissons.’—**1**, Richardson, L., 2 ; Silvester, N. L.

——. *See also* Fault-fissures.

Fistulipora.—**1**, Salée, A., 3.

Fitzgerald R. area (W. Austr.).—**2**, Maitland, A. G., 2.

Fjords.—**0**, Sverdrup, H. U. ; **1**, Wahnschaffe, F.

Flagstaffite.—**0** & **1**, Guild, F. N.

Fläming (Prussia).—**1**, Korn, J., 5.

Flanders. *See* East Flanders *&* West Flanders.

Flandre (Nord).—**1**, Briquet, A., 2 ; Gosselet, J., 2.

Flaxville gravel, Montana.—**0**, Collier, A. J., 8.

Flenusian, Hainault.—**1**, Rutot, A., 3.

Flesch, Val (Lombardy).—**1**, Artini, E., 3.

Flexibilia.—**1**, Springer, F.

Flexibility of rocks.—**1**, Fournier, E.

Flexures.—**2**, Haarmann, E., 3.

Flin-Flon (Manit.).—**1**, Wallace, R. C.

Flints.—**0**, Burwash, E. M., 2 ; Carus-Wilson, C., 2 ; **1**, Gray, J. W., 1, 2 ; **2**, Wetzel, W., 4.

——, organism in.—**1**, Carus-Wilson, C. ; Cole, G. A. J., 6.

——, origin.—**0**, Brydone, R. M. ; Richardson, W. A.

——. *See also* Clay-with-flints *&* Pebbles.

Flintshire.—**0**, Acton, T. A.

Floods, Argentina.—**0**, Kantor, M., 2.

——, California.—**0**, McGlashan, H. D.

——, German coastal.—**1**, Otto, T. ; Tornquist, A.

Floras. *See* Arctic flora, Plantæ, *&c.*

Florence (Tuscany).—**1**, Feruglio, E.

Florida (U.S.A.).—**1**, Cooke, C. W. ; **2**, Buttgenbach, H., 2 ; Imbeaux, E. *See also* Tortugas.

Flörsheim (Hesse-Nassau).—**1**, Drevermann, F., 2.

Florzé (Liége).—**0**, Anthoine, R., 2.

Flow, earth's crust.—**1**, Hobbs, W. H., 4.

——, metals & minerals.—**0**, Michelson, A. A.

Flucan. *See* Gouge.

Fluocerite.—**1**, Geijer, P. ; Wherry, E. T., 6.

Fluorspar.—**1**, Greenland, C. W. ; Imperial Mineral Resources Bureau, 16 ; **2**, Anon., 33 ; Hirschi, H., 2 ; Kalb, G., 3.

——, British Columbia.—**0**, Graham, R. P. D.

——, Kentucky,—**0**, Hoeing, J. B., 2 ; **1**, Jillson, W. R., 22.

——, Mexico.—**2**, Wittich, E., 7.

——, Ontario.—**0**, Mond, R. L. ; **2**, Wilson, M. E., 3.

——, Saône-et-Loire.—**0**, Lañe, A. C., 2.

——, Sweden.—**2**, Zenzén, N., 3.

——, coloration.—**1**, Geijer, P., 3 ; **2**, Dœlter, C., 4 ; Sakao, T.

——, crystallography.—**0**, Broome, B. ; **2**, Parsons, A. L., 2 ; Veit, K. ; Weber, L., 3 ; Wetzel, W., 3.

Fluorspar, world's resources. — **0**, United States, 5, 6, 8 ; **2**, United States, 9, 11, 13.
—— -yttrofluorite group.—**2**, Vogt, T.
Fluvial deposits, Holland.—**2**, Van Baren, J.
—— platforms. *See* Platforms.
—— striæ. *See* Striæ.
Fluvio-glacial deposits, Sweden.—**2**, Sundius, N., 3.
—— -volcanic series, Nigeria.—**1**, Falconer, J. D.
Flux, Midlands.—**0**, Fearnsides, W. G.
Flysch, Basses-Pyrénées.—**2**, Viennot, P., 1, 2.
——, Carpathians. — **1**, Teisseyre, W.
——, Czechoslovakia. — **2**, Kettner, R., 6 ; Kodym, O., 4 ; Stočes, B., 2.
——, Germany.—**2**, Richter, M., 2, 4.
——, Lower Austria.—**1** & **2**, Friedl, K.
——, Poland.—**0**, Loziński, W. v. ; Zuber, R., 3 ; **2**, Nowak, J.
——, Romania.—**0**, Lóczy, L. v., *fil* ; Muecke, K. v. ; **2**, Mrazec, L., 10, 11.
——, Switzerland.—**0**, Buxtorf, A. ; Jeannet, A. ; **1**, Rabowski, F. ; **2**, Mollet, H.
——, the term.—**1**, Segrè, C.
Foetorius.—**0**, Sœrgel, W., 3.
Fold-axes.—**1**, Guébhard, A., 7.
—— -mountains. — **2**, Cloos, H. ; Wæhner, F.
Folding.—**0**, Ampferer, O., 11, 18 ; Hewett, D. F., 3 ; Stille, H. ; **1**, Haarmann, E. ; Wolff, — ; **2**, Hungerer, E. ; Russo, P., 2.
——, Albania.—**1**, Nowak, E.
——, Ardennes.—**0**, Hummel, K., 2.
——, Austria (W.).—**0**, Cornelius, H. P., 2.
——, Bohemia.—**0**, Wæhner, F., 1, 2.
——, Dutch E. Indies.—**0**, Brouwer, H. A., 2.
——, Europe (E.).—**2**, Kuźniar, C.
——, France (N.E.).—**0**, Werveke, L. v., 8.
——, Germany.—**0**, Cornelius, H. P., 2 ; Jækel, O., 3 ; Werveke, L. v., 8 ; **1**, Haack, W., 3 ; Vogel, H. ; **2**, Bubnoff, S. v.
——, Glamorgan.—**2**, Davies, R.
——, Lombardy.—**1**, Cacciamali, G. B.
——, Midland (S.).—**0**, Cox, A. H., 3.
——, Monmouthshire.—**2**, Davies, R.
——, Pyrenees.—**2**, Bertrand, L., 3.
——, Spain (N.E.).—**2**, Joly, H., 4.
——, Staffordshire.—**1** & **2**, King, W. W., 2.
——, Switzerland.—**0**, Girardin, P., 2 ; **1**, Arbenz, P.
——, Worcestershire.—**1**, King, W. W.
Folding, earth's crust.—**1**, Abendanon, E. C. ; Guébhard, A., 6.
——, mountains &.—**0**, Ampferer, O., 5 ; Stille, H., 2 ; Woodworth, J. B. ; **1**, Quiring, H., 4 ; **2**, Argand, E. ; Burrard, S.
——, nomenclature.—**2**, Haarmann, E., 3.
——, petroleum &.—**2**, White, D.
——, ptygmatic, Fennoscandia.—**0**, Holmquist, P. J.
——. *See also* Diaper-structure, Drag-folding, *&c.*
Foliation, metamorphic rocks.—**2**, Cornelius, H. P., 4 ; Erdmannsdœrffer, O. H., 2.
Footprints. *See* Tracks.
Foraminifera.—**0**, Cushman, J. A., 2 ; Toula, F., 4 ; **1**, Douvillé, H., 5 ; Martinotti, A. ; Sollas, W. J. ; **2**, Deecke, W.
——, Bonaventure cherts.—**1**, Bagg, R. M.
——, Carboniferous.—**0**, Butler, B. S. ; Holtedahl, O., 17 ; **1**, Schubert, R. ; **2**, Morningstar, H.
——, Cretaceous.—**0**, Davey, E. C. ; Dettmer, F. ; Franke, A. ; Halaváts, G. v. ; Hucke, K. ; Stanton, T. W., 2 ; **1**, Douvillé, H., 3 ; Hollis, E. ; Ravn, J. P. J. ; **2**, Cottreau, J. ; Koch, F.
——, Devonian.—**2**, Chapman, F.
——, Eocene.—**0**, Cushman, J. A., 2 ; Halaváts, G. v. ; Halkyard, E. ; Liebus, A. ; **1**, Cooke, C. W. ; Cushman, J. A., 1, 2 ; Lapparent, J. de, 2 ; Leardi in Airaghi, Z., 1–3; **2**, Abrard, R. ; Bosworth, T. O. ; Douvillé, H., 4 ; Fabiani, R., 8 ; Newton, R. B. ; Woods, H. ; Yabe, H., 5.
——, Jurassic.—**1**, Neaverson, E., 2 ; **2**, Gignoux, M., 5 ; Lacroix, E.
——, Miocene.—**0**, Cushman, J. A., 1, 3 ; Douvillé, H. ; Jæger, R. ; Martin, K., 2 ; Schubert, R. J. ; Toula, F. ; Vaughan, T. W., 5 ; **1**, Toula, F. ; **2**, Chapman, F., 2, 10 ; Dickerson, R. E., 3 ; Yabe, H., 4.
——, Oligocene.—**0**, Cushman, J. A., 2, 5 ; Hucke, K. ; Vaughan, T. W., 5 ; **2**, Cooke, C. W., 2 ; Cushman, J. A. ; Fabiani, R., 8.
——, Palæogene.—**0**, Silvestri, A.
——, Pleistocene.—**0**, Vaughan, T. W., 5.
——, Pliocene.—**0**, Cushman, J. A.
——, Pre-Cambrian.—**0**, Rothpletz, A.
——, Tertiary.—**0**, Abendanon, E. C. ; Herrmann, A. ; Howchin, W., 2 ; Rzehak, A. ; Toula, F., 2 ; **1**, Allix, — ; Bézier, T. ; **2**, Lisson, C. I.
——, Trias.—**1**, Jaworski, E.
——, classification.—**1**, Douvillé, H., 15 ; **2**, Gignoux, M., 5.

Foraminifera, evolution.—**1**, Douvillé, H., 18 ; **2**, Douvillé, H., 9.
——, stratigraphic correlation &.—**0**, Cushman, J. A., 4 ; **2**, Sherlock, R. L., 2.
——. *See also* Nummulites *&* Orbitoidea.
Ford (Bucks).—**1**, Hollis, E.
Fordilla.—**0**, Rothpletz, A.
Forest-bed, Norfolk.—**1**, Moir, J. R., 4–6 ; **2**, Moir, J. R.
Forest of Dean (Glos).—**2**, Richardson, L., 6.
Forestry, geology &.—**1**, Mueller, J., 2.
Forests, submerged.—**1**, Marriott, R. A., 2.
Forfarshire.—**0**, Campbell, R. ; **1**, Coates, H. ; **2**, McLintock, W. F. P.
Formicidæ.—**0**, Donisthorpe, H. St. J. K. ; Emery, C. ; **1**, Wheeler, W. M., 1, 2.
Fornovo (Emilia).—**1**, Zuffardi, P., 2.
Forsbach (Rheinland).—**1**, Brauns, R., 5.
Forsterite.—**1**, Andersen, O. ; **2**, Bœke, H. E., 5.
Fort Berthold Reservation (N. Dak.).—**2**, Bauer, C. M.
Fort Hall Indian Reservation (Idaho).—**1**, Mansfield, G. R.
Fort Union beds, Wyoming.—**1**, Wegemann, C. H.
Fort William (Ont.).—**1**, Keele, J., 2.
Fossil zones. *See* Zones.
Fossilization.—**1**, Deecke, W., 4 ; Sabbatini, L. ; **2**, Abel, O., 3.
Fossils.—**0**, Meunier, S. ; Sernander, R. ; **1**, Born, A., 2.
——, collections.—**0**, Raymond, P. E., 2 ; Stromer, E., 3.
——, coloration.—**1**, Collin, L., 3.
——, diseases in.—**0**, Fourtau, R., 2 ; Pieragnoli, L. ; **1**, Pieragnoli, L. ; **2**, Moodie, R. L., 1, 2 ; Pieragnoli, L.
——, earliest.—**0**, Rothpletz, A.
——, included in gypsum.—**2**, Durand, J. F.
——, index.—**2**, Felix, J. ; Grabau, A. W., 3.
——, preservation.—**0**, Gothan, W. ; Troll, O. R. v., 2 ; **2**, Wulff, R.
——, reproductions.—**0**, Coëmme, S., 3 ; Nicolesco, C., 2, 3 ; **1**, Nicolesco, C., 2–4.
——, stratigraphy &.—**1**, Weller, S.
——. *See also* Brachiopoda, Life, *&c.*
Foster (Vict.).—**0**, Hunter, S. B.
Foyaite, Transvaal.—**2**, Shand, S. J., 1, 2.
Fracture-surface, igneous rocks.—**0**, Whitney, W. B.
—— -zone, Venetia.—**0**, Klebelsberg, R. v., 3.
Fractures.—**0**, Wright, F. E. ; **1**, Brouwer, H. A. ; Oldham, R. D., 2.
Fractures, Berne.—**1**, Buxtorf, A., 3.
——, France.—**0**, Werveke, L. v., 8 ; **1**, Buxtorf, A., 3 ; Duplessix, E. ; **2**, Mouret, G., 2.
——, Germany.—**0**, Werveke, L. v., 8 ; **2**, Bubnoff, S. v.
——, Lombardy.—**2**, Buelow, E. U. v., 2.
——, Tanganyika.—**2**, Meyer, O. E.
Fraele valley (Lombardy).—**1**, Craveri, M.
France.—**0**, Rutot, A. ; **1**, Brière, Y. ; Launay, L. de.
——, geological map.—**0**, Bigot, A.
——, iron.—**0**, Harder, E. C., 2 ; **1**, Cayeux, L., 1, 2 ; Nicou, P. ; **2**, Krusch, P., 4.
——, mineral resources.—**0**, Dollfus, G. F., 20 ; Nelson, A. ; **1**, Sampelayo, P. H. ; **2**, Finaton, C.
——, stratigraphy.—**0**, Dollfus, G. F., 5 ; **2**, Dollfus, G. F., 6 ; Monestier, J. ; Schindewolf, O. H.
——, water.—**0**, Welsch, J. ; **1**, Charpiat, R., 3.
—— (E.), tectonics.—**0**, Werveke, L. v., 3, 21.
—— (N.).—**0**, Burwash, E. M. ; **2**, Leriche, M., 10.
—— (N.E.).—**0**, Burwash, E. M., 2 ; Werveke, L. v., 8, 12 ; **1**, Kranz, W., 3.
—— (——), Coal Measures.—**0**, Barrois, C. ; Crooks, H. F. ; Pruvost, P., 3–6 ; **2**, Frech, —.
—— (——), Quaternary.—**0**, Commont, V., 2 ; **1**, Hallez, H., 3 ; Lorié, J. ; Rutot, A., 1, 2.
—— (——), Silurian-Devonian. — **2**, Leriche, M., 6 ; Stamp, L. D., 4.
—— (——), Tertiary-Cretaceous.—**1**, Briquet, A., 3 ; Gosselet, J. ; King, W. B. R. ; Stamp, L. D., 5.
—— (——), Trias.—**0**, Wagner, G. ; Werveke, L. v., 15 ; **2**, Kraus, E., 2.
—— (S.), limestone plateaux.—**0**, Martonne, E. de.
—— (S.E.), Cretaceous.—**0**, Kilian, W., 5 ; **1**, Lory, P., 1, 2.
—— (——), subsidence.—**1**, Négris, P., 6.
—— (S.W.), coasts.—**0**, Saint-Jours, B.
—— (——), Tertiary.—**0**, Depéret, C.; Dollfus, G. F., 4, 11, 12 ; Repelin, J., 2 ; **1**, Blayac, J., 2 ; Dollfus G. F. ; Repelin, J.
—— (W. Central), post-Glacial. — **1**, Welsch, J., 3.
——. *See also* Adour R. area, Anjou, Cantal, *&c.*
Francocaris.—**2**, Broili, F., 3.
Franconia (Germany).—**0**, Henkel, L. ; Schindewolf, O. H. ; Schuster, M. ; **1**, Seyfried, E. v. ; Wagner, G.
Frankenstein (Odenwald). — **0**, Klemm, G., 2.

Frankenstein (Silesia).—**1**, Friedensburg, F.
Frankfurt (Hesse-Nassau). — **2**, Drevermann, F., 3.
Fränkischer Jura (Bavaria). — **2**, Pfaff, F. W.
Franklin Furnace (N.J.).—**2**, Larsen, E. S., 2, 3 ; Shannon, E. V., 15.
Franz Josef glacier (N.Z.). — **2**, Speight, R., 3.
Franz Josef Land (Arctica).—**0**, Holmes, A., 10 ; **2**, Pavloff, M. A.
Franzensfeste (Trentino).—**0**, Sander, B., 3.
Frascati (Lazio).—**1**, Agamennone, G., 4.
Fraser R. (B.C.).—**1**, Camsell, C. ; Johnston, W. A., 1, 2 ; **2**, Johnston, W. A., 1, 4.
Freestone (Queensl.).—**2**, Reid, J. H.
Freestone, Victoria. — **2**, Baragwanath, W., 3 ; Keble, R. A., 2.
Freia.—**0**, Bœhm, J., 2.
Freiburg (Baden).—**2**, Lais, R., 2.
Freiburg (Switzerland). *See* Fribourg.
French Equatorial Africa.—**1**, Delhaye, F., 2.
French Indo-China.—**0**, Deprat, J. ; Mansuy, H., 4, 8. *See also* Annam, Laos, *&c.*
French R. area (Ont.).—**1**, Hobbs, W. H., 2.
French Somaliland. *See* Somaliland.
French West Africa.—**0**, Chudeau, R., 1, 2 ; Hubert, H., 2–6 ; **1**, Hubert, H. *See also* Mauritania, Senegal, *&c.*
Frenières (Vaud).—**0**, Lugeon, M., 4.
Fribourg (Switzerland).—**0**, Girardin, P., 4 ; Heim, Arnold, 2 ; **1**, Gagnebin, E. ; Heim, Arnold ; Musy, M., 2 ; **2**, Gagnebin, E. ; Mauve, C. C.
—— (——), landslides.—**0** & **1**, Girardin, P.
—— (——), rivers.—**0**, Schardt, H. ; **1**, Lugeon, J. ; Schardt, H., 2.
—— (——), tectonics.—**0**, Girardin, P., 3 ; Schardt, H., 2 ; **1**, Schardt, H., 3.
Frick (Aargau).—**1**, Braun, L.
Friedrichroda (Thuringia).—**1**, Weber, K. A.
Frische Nehrung (E. Prussia).—**1**, Klautzsch, A., 6.
Friuli (Venetia).—**2**, Feruglio, E.
Frost action.—**0**, Behr, F. M., 2 ; **2**, Werenskiold, W., 3.
Fruits, fossil.—**0**, Groves, J. ; **1**, Reid, C. ; **2**, Berry, E. W., 8, 10, 12 ; Thomas, H. Hamshaw, 2.
Fuchsite.—**0**, Buttgenbach, H., 2 ; **1**, Hackl, O.
Fucino basin (Abruzzi).—**0**, Crema, C., 2 ; **1**, Chelussi, I., 6.
Fucoids.—**0**, Rovereto, G., 2 ; **2**, Dettmer, F. ; Franceschi, R., 1, 3 ; Rovereto, G.
Fuggerite.—**2**, Buddington, A. F.
Fulda valley (Hesse).—**0**, Schottler, W.
Fulgoridæ.—**2**, Cockerell, T. D. A., 8.
Fulgurite, Mecklenburg.—**2**, Geinitz, E., 3.
Fulham (S. Austr.).—**0**, Howchin, W., 9 ; White, S. A.
Fuller's earth.—**0**, Anon., 40 ; **1**, Imperial Mineral Resources Bureau, 7 ; **2**, Gagel, C., 3.
—— ——, New Zealand.—**0**, Morgan, P. G., 2.
—— ——, United States.—**0**, United States, 5, 6, 8 ; **1**, United States, 9 ; **2**, United States, 11, 13.
Fumaroles, Italy.—**1**, Fiore, O. de, 2 ; **2**, Fiore, O. de, 3, 4.
Fumel (Lot-et-Garonne).—**0**, Romieux, —.
Funafuti I. (Pacific).—**0**, Skeats, E. W., 8, 9.
Fundusi, L. (Transvaal).—**0**, Trevor, T. G.
Fungi.—**2**, Kidston, R., 2.
Furness (Lancs).—**0**, Kendall, J. D., 1, 4 ; Smith, B. ; **1**, Kendall, J. D., 1–3.
Fürstenwalde (Brandenburg). — **1**, Wahnschaffe, F., 2.
Fusain.—**1**, Sinnatt, F. S. ; **2**, Sinnatt, F. S., 1, 2 ; Stopes, M. C., 2.
Fusulina.—**1**, Schubert, R.

G

Gabbro, Aberdeenshire.—**1**, Read, H. H., 2.
——, Antarctica.—**0**, Bodman, G.
——, British Columbia.—**0**, Cooke, H. C.
——, Cumberland.—**0**, Melmore, S.
——, Dobrogea.—**2**, Rotman, D., 2.
——, Germany.—**0**, Klemm, G., 2, 11.
——, Lipari Is.—**2**, Bergeat, A., 4.
——, Madagascar.—**2**, Lacroix, A., 2.
——, Manitoba.—**2**, Cooke, H. C., 2.
——, Moravia.—**0**, Kretschmer, F.
——, Norway.—**0**, Holmsen, G. ; **1**, Rekstad, J. ; **2**, Goldschmidt, V. M., 6.
——, United States (N.E.).—**1**, Bascom, F., 2 ; **2**, Wandke, A., 2.
——, Valais.—**1**, Bartholmès, F.
——, anorthosite-. *See* Anorthosite-gabbro.
——, hornblende-, Japan.—**1**, Watanabé, M.
Gabbro-amphibolite, Saxony. — **2**, Bergt, W.
—— -diorite, Norway.—**1**, Bugge, C.
—— -pegmatite, Prussia. — **2**, Fromme, J., 3.
Gadernheim (Odenwald).—**0**, Klemm, G., 13.
Gadolinite.—**2**, Fromme, J., 2 ; Muegge, O., 17.

Gaeta (Lombardy).—**1**, Repossi, E., 4.

Galena.—**0**, Russell, A., 2 ; **1**, Wheeler, H. A. ; **2**, Hills, R. C., 2 ; Mélon, J. ; Newhouse, W. H.

——, Carinthia.—**2**, Granigg, B.

——, Harz.—**2**, Stahl, A., 3.

——, Sardinia.—**1**, Tacconi, E., 2.

——, Silesia (Czechos.).—**2**, Kretschmer, F., 2.

Galgenberg (Silesia).—**2**, Muehlen, L. v. z., 2.

Galgóc (Slovakia).—**1**, Ferenczi, S.

Galicia (Poland).—**0**, Loziński, W. v. ; Wegner, T., 3 ; **1**, Rudnyćkyj, S. ; Teisseyre, W. ; **2**, Davis, W. M. ; Tołwiński, K.

—— (——), geological survey. — **0**, Tietze, E. E. A., 6, 7, 9, 11.

—— (——), mineral resources.—**0**, Petrascheck, W., 8 ; **2**, Friedl, K., 2 ; Nowak, J.

—— (——). *See also* Lwów.

Galicia (Spain).—**2**, Sampelayo, P. H.

Gallio (Venetia).—**0**, Rodighiero, A.

Galloway (Scotland).—**2**, Gauld, W. A.

Gambier, Mt. (S. Austr.).—**2**, Fenner, C. N.

Gangamopteris.—**0**, Fritel, P. H.

Ganges R.—**0**, Pascoe, E. H.

Gangetic plain (India).—**1**, Cowie, H. McC.

Gangue minerals. *See* Minerals.

Ganister, Great Britain.—**0**, Lamplugh, G. W., 35 ; Thomas, Herbert H., 2.

Ganoidei.—**0**, Stolley, E., 2.

Gard (France).—**0**, Bertrand, P. ; Brun, P. de ; Termier, P., 1, 6–8 ; **1**, Termier, P., 2 ; **2**, Depape, G.

GARDNER's theory of concretions.—**2**, Patton, L.

Gargano Mts. (Puglia).—**0** & **1**, Checchia-Rispoli, G.

Garmisch (Bavaria).—**2**, Schmidt, C.

Garnet.—**1**, Eitel, W., 3 ; Holmquist, P. J., 9 ; **2**, Freudenberg, W., 2 ; Grill, E., 4 ; Shannon, E. V., 16 ; Wagner, P. A., 2.

Garnet-gneiss. *See* Gneiss.

—— -rock, Germany.—**0**, Klemm, G., 13 ; **1**, Theobald, H.

—— - ——, Ligurian Apennines.—**1**, Repossi, E., 13.

—— -sands. *See* Sands.

Garnet Range (Mont.).—**0**, Pardee, J. T., 2.

Garo Hills (Assam).—**0**, Pinfold, E. S., 3 ; **1**, Vredenburg, E., 3.

Garpenberg (Sweden).—**0**, Lindroth, G. T.

Garsebach (Saxony).—**1**, Beck, R.

Garvoc (Vict.).—**0**, Ower, L. H.

Gas.—**0**, Johnson, R. H. ; Mills, R. Van A., 1, 2 ; Weithofer, K. A. ; **1**, Reck, H. ; White, I. C., 2 ; **2**, Tănăsescu, I., 1, 2.

Gas, Alberta.—**0**, Dowling, D. B. ; **1**, Slipper, S. E.

——, Auckland.—**2**, Henderson, J., 3.

——, British Columbia.—**1**, Stewart, J. S.

——, England.—**0**, Strahan, A., 4.

——, Kentucky.—**0**, Fœrste, A. F. ; Hoeing, J. B. ; Hutchinson, F. M., 2 ; Jillson, W. R., 1, 2, 7 ; Munn, M. J. ; **1**, Jillson, W. R., 2–6, 9, 10, 15, 16, 19, 23, 25, 26 ; **2**, Jillson, W. R., 3, 7, 10, 11 ; Weller, S., 2.

——, Louisiana.—**0**, Matson, G. C., 3.

——, Manitoba.—**0**, Dowling, D. B.

——, Mid-Continent area.—**0**, Bosworth, T. O.

——, Missouri.—**0**, Wilson, M. E.

——, Montana.—**0**, Hancock, E. T., 1, 2 ; **2**, Thom, W. T., *fil.*

——, N.-W. Frontier Province.—**0**, Stuart, M., ; **1**, Stuart, M., 4.

——, Ohio.—**0**, Rogers, G. S. ; **1**, Stout, W., 1, 2.

——, Oklahoma.—**0**, Beal, C. H. ; **2**, Hopkins, O. B. ; Robinson, H. M.

——, Saskatchewan.—**0**, Dowling, D. B.

——, Sussex.—**0**, Great Britain, 5.

——, Switzerland.—**0**, Schmidt, C., 1, 2.

——, Texas.—**0**, Matson, G. C., 4 ; **1**, Shaw, E. W., 2 ; **2**, Hopkins, O. B.

——, United States. — **0**, United States, 4–6 ; **1**, United States, 7 ; **2**, United States, 9, 11.

——, Wyoming.—**0**, Collier, A. J., 6 ; **1**, Hancock, E. T.

——, accumulation & migration.—**1**, Rich, J. L. ; **2**, Blackwelder, E. ; Bonine, C. A.

——, bibliography.—**1**, Frankforter, C. J.

——, coal-field, Belgium.—**1**, Renier, A., 3.

——, rare gases in.—**0**, Moureu, C. ; **1**, Rogers, G. S., 2.

——. *See also* Helium & Volcanic gas.

Gas-fields.—**1**, McCoy, A. W. ; Mills, R. V. A.

—— -sands.—**2**, Johnson, R. H.

Gaspé Penin. (Queb.).—**1**, Bagg, R. M. ; Clarke, J. M., 5 ; **2**, Coleman, A. P., 1, 2.

Gastropoda. — **0**, Annandale, N. ; Klæhn, H., 2 ; Vredenburg, E. W., 4 ; **1**, Deecke, W. ; **2**, Andrée, K., 3 ; Annandale, N. ; Frech, F., 3 ; Grabau, A. W., 3 ; Prell, H., 2 ; Wenz, W., 4.

——, Cambrian.—**0**, Mansuy, H. ; Rothpletz, A. ; **1**, Cobbold, E. S. ; **2**, Kiær, J., 5.

——, Cambro-Ordovician.—**0**, Holtedahl, O., 5.

Gastropoda, Carboniferous.—**0**, Butler, B. S.; Frech, F., 2; Hinds, H., 2; Holtedahl, O., 3, 4; Reed, F. R. C., 2; **1**, Benson, W. N., 2; **2**, Garwood, E. J.; Greene, G. K.; Mansuy, H., 2; Morningstar, H.; Powers, S., 3.

——, Cretaceous.—**0**, Abendanon, E. C.; Annandale, N.; Bœhm, J., 7; Brun, P. de; Clark, W. B., 2; Cossmann, A. E. M.; Frech, F., 2; Newton, R. B.; Stanton, T. W., 1, 2; Woldřich, J.; **1**, Bœhm, J., 7; Burmester, L.; Douvillé, H., 3, 21; Etheridge, R., 2; Fossa-Mancini, E., 5; Rollier, L.; **2**, Behrendsen, O.; Berry, E. W., 20; Cottreau, J.; Packard, E. L.; Ravn, J. P. J.; Wilckens, O., 2, 5; Woodward, B. B.

——, Culm.—**1**, Hueffner, E.; Weigelt, J.

——, Devonian. — **0**, Butts, C.; Douglas, J. A.; Dunbar, C. O.; Leidhold, C., 2; Nettelroth, H.; **1**, Collin, L., 3; Dahmer, G., 2, 3; Dienst, P.; Dunbar, C. O.; Heritsch, F.; Hueffner, E., 2; Kirchner, H. S.; Lieber, H.; Spriestersbach, J.; Vieetor, W.; **2**, Kirchner, H. S.; Mansuy, H., 2, 3; Reed, F. R. C., 1, 2; Shannon, W. G. St. J.

——, Eocene.—**0**, Abendanon, E. C.; Charpiat, R.; Dalimier, H.; Fabiani, R., 7; Oppenheim, P.; **1**, Charpiat, R., 4, 6; Douvillé, H., 20; Stamp, L. D., 5; **2**, Bosworth, T. O.; Charpiat, R., 2, 3; Fabiani, R., 8; Jooss, C. H., 2; Leriche, M., 7; Lukovitch, M. T.; Newton, R. B.; Wilckens, O., 2; Woods, H.

——, Jurassic.—**0**, Roig, M. S., 2; **1**, Antoine, —; Douvillé, H., 3; Grossouvre, A. de, 3; Newton, R. B.; Rollier, L.; **2**, Behrendsen, O.; Cossmann, A. E. M.; Krumbeck, L., 6; Mansuy, H., 1, 4; Reck, H., 2; Riche, A.

——, Lias.—**1**, McDonald, A. I.; Tilmann, N., 2.

——, Lockport limestone.—**2**, Dyer, W. S.

——, Miocene.—**0**, Cossmann, A. E. M., 3; Dollfus, G. F., 2; Gardner, Julia A.; Martin, K.; Maury, C. J.; Oppenheim, P., 3, 8; Stefanini, G., 2; Thuma, F., 2; Vredenburg, E. W., 7; **1**, Chapman, F., 3; Cossmann, M., 2; Fischer, K.; Gripp, K.; Halaváts, G. v.; Hanna, G. D.; Harmer, F. W.; Morgan, J. de; Vredenberg, E., 3, 4; Wenz, W., 1, 2; **2**, Bosworth, T. O.; Chapman, F., 2; Cooke, C. W.; Daus, H.; Dickerson, R. E., 1, 3; Gómez, J. R.; Hanna, G. D.; **2**, Jooss, C. H., 3; Petrascheck, W., 3; Popescu-Voiteşti, I., 4; Spieker, E. M.; Trask, P. D.; Vredenburg, E. W.; Wenz, W., 5; Woods, H.

——, Montian.—**0**, Cossmann, A. E. M.

——, Neogene.—**1**, Dollfus, G. F., 12; Tesch, P., 1, 2.

——, Oligocene.—**0**, Abendanon, E. C.; Cossmann, A. E. M., 2; Dollfus, G. F., 11; Maury, C. J.; **1**, Fischer, K., 1, 2; Hubbard, B.; Vredenberg, E., 4; **2**, Cooke, C. W.; Dollfus, G. F., 6; Fabiani, R., 8; Oppenheim, P.; Petrascheck, W., 3; Vredenberg, E. W.

——, Ordovician.—**0**, Bassler, R. S.; Born, A.; Butler, B. S.; Butts, C.; Clark, T. H.; Miller, A. M.; Reed, F. R. C.; Shaw, E. W., 5; **1**, Bekker, H.; Raymond, P. E., 3; Reed, F. R. C., 1, 2; **2**, Holtedahl, O., 3; Ruedemann, R., 2; Vinassa de Regny, P.; Wilson, A. E.

——, Palæozoic.—**0**, Holtedahl, O., 6; Mansuy, H., 3, 5.

——, Permian.—**1**, Stauffer, C. R., 2; **2**, Wanner, C.

——, Permo-Carboniferous.—**2**, Mitchell, J.

——, Pleistocene.—**0**, Baker, F. C.; Chapman, F., 3; Krause, P. G., 2; Marr, J. E.; Petrbok, J.; Troll, O. R. v., 3; **1**, Chapman, F., 3; Cockerell, T. D. A., 4; Schrœder, H., 7; **2**, Baker, F. C.; Dickerson, R. E., 3; Hanna, G. D., 2; Lais, R.

——, Pliocene.—**0**, Dall, W. H., 2; Meli, R., 2; Menzel, H.; Oppenheim, P., 8; Yokoyama, M.; **1**, Harmer, F. W., 1, 2; **2**, Dickerson, R. E., 3; Howe, H. V.; Ionescu-Argetoaia, I., 10; Oppenheim, P., 3; Wenz, W., 5; Yokoyama, M.

——, post-Glacial.—**2**, Favre, J.

——, Quaternary.—**0**, Bartsch, P.; Geyer, D., 1, 2; Johansen, A. C.; **1**, Bárdarson, G. G.; Frenguelli, J., 2; Germain, L.; Geyer, D.; Harmer, F. W., 1, 2; Tesch, P., 1, 2; **2**, Bosworth, T. O.; Goldring, W.; Kennard, A. S.

——, Recent.—**1**, Menzel, H., 4; **2**, Whittaker, E. J.

——, Silurian.—**0**, Butts, C.; Nettelroth, H.; Reed, F. R. C.; **1**, Reed, F. R. C., 1, 2; **2**, Greene, G. K.; Mansuy, H., 12.

——, Tertiary.—**0**, Bartrum, J. A., 2; Cooke, C. W.; Dollfus, G. F., 18; Marshall, P., 1, 6, 7; Suter, H., 1–3; Vredenburg, E. W., 4, 6; **1**, Dickerson, R. E.; Dollfus, G. F., 7; Suter, H.; Vredenburg, E., 2, 3; **2**, Dall, W. H.; Gregory, J. W.; Guillaume, L.; Marshall, P.; Oppenheim, P., 10; Pilsbry, H. A.; Vredenburg, E. W., 2; Wenz, W., 1, 3.

——, Trias.—**0**, Kittl, E., 2; Mansuy, H., 5; **1**, Jaworski, E.; Mariani, E.; Wilckens, R.; **2**, Jaworski, E., 4; Krumbeck, L., 3; Mansuy, H.; Osswald, K.

——, classification.—**0**, Bœhm, J., 5; Charpiat, R., 2; Martin, K., 3; **1**, Charpiat, R., 5; Geyer, D.; Vredenburg, E.; **2**, Douvillé, H., 7; Oppenheim, P., 10.

——, India.—**1**, Annandale, N.

——, Moravia.—**0**, Toula, F., 4.

——, New Zealand.—**2**, Marshall, P., 2.

——, nomenclature.—**0**, Dall, W. H.; **1**, Lambert, J., 2.

——, Sweden.—**2**, Kurck, C.

——, Yunnan.—**0**, Mansuy, H., 7.

Gastuche (Brabant).—**1**, Halet, F., 4.

Gatineau valley (Queb.).—**1**, Keele, J., 3.

Gattendorf (Franconia).—**0**, Schindewolf, O. H.

Gault, Bedfordshire.—**0**, Kitchin, F. L., 2; Lamplugh, G. W., 4; **1**, Kitchin, F. L.; Lamplugh, G. W., 4; **2**, Kitchin, F. L., 2; Lamplugh, G. W.; Stamp, L. D., 5.

——, Buckinghamshire.—**1**, Hollis, E.

——, England.—**2**, Kitchin, F. L.

——, Hanover.—**2**, Ernst, W.; Pompeckj, J. F., 5.

——, Holland.—**2**, Bœhm, J.

——, Pas-de-Calais.—**2**, Stieler, C., 3.

Gaura (Transylvania).—**1**, Grengg, R., 2.

Gavialidæ.—**0**, Boulenger, G. A.; Joleaud, L., 2.

Gavialosuchus.—**2**, Mook, C. C., 2.

Gavorrano (Tuscany).—**2**, Lohmann, F.

Gâvre (Morbihan).—**0**, La Porte, F.

Gazella.—**1**, Campana, D. del.

Gazellinæ.—**0**, Joleaud, L.

Gdansk (Poland).—**2**, Sonntag, P.

G'doumont (Belgium).—**1**, Renier, A., 2.

Geanticlines.—**1**, Brouwer, H. A.

Gearksutite.—**0**, Simpson, E. S., 2.

Gebel Nezzazat (Sinai).—**0**, Hume, W. F., 2.

Gebel Tanka (Sinai).—**0**, Hume, W. F., 3.

Gebel Zeit (Egypt).—**0**, Mrazec, L.

Gedinnian, Belgium-France. — **0**, Fourmarier, P., 12; **1**, Pruvost, P., 5; Renier, A., 2.

Geelong (Vict.).—**0**, Skeats, E. W., 4.

Gehlenite.—**0**, Ferguson, J. B., 3; **2**, Buddington, A. F.

Gem-stones.—**0**, Bœke, H. E., 2; Koller, P., 2; United States, 6, 8; **1**, Crook, T.; United States, 9; **2**, Ball, S. H.; Whitlock, H. P.

Gem-stones, New South Wales.—**2**, Harper, L. F., 5.

——, Queensland.—**2**, Anon., 27.

——, United States.—**0**, United States, 4, 5; **2**, United States, 11.

——, in United States National Museum.—**2**, Merrill, G. P., 8.

——, synthetic.—**2**, Quensel, P., 2; Sjœgren, H.

——, text-book.—**2**, Streeter, E. W.

Gempen (Basel).—**0**, Gutzwiller, A.

Generoso, Mte. (Tessin).—**0**, Renz, C.

Genesee R. (N.Y.).—**0**, Fairchild, H. L., 9.

Geneva (Switzerland).—**0**, Boissier, R.; **2**, Favre, J.; Joukowsky, E.

Geneva, L. area.—**0**, Joukowsky, E.

Genoa (Liguria).—**0**, Zaccagna, D.

Genus, in biological classification.—**2**, Pia, J.

Geochemistry.—**0**, Clarke, F. W.; **1**, Goodchild, J. H., 2; Linck, G., 2; Washington, H. S.; **2**, Campbell, J. M., 2.

Geochronology.—**0**, Nicholson, E. D.; Termier, P., 5; **1**, Andrée, K.; Born, A., 2; Holtedahl, O., 2.

——, Pre - Cambrian. — **0**, Goldschmidt, V. M., 2.

——, Quaternary.—**0**, Carlzon, C.; Depéret, C., 2; Gagel, C., 8; Sauramo, M.; Werth, E., 5; **2**, Credner, W.; Dachnowski, A. P.

——. *See also* Time.

Geodes, in dolomite.—**2**, Moressée, G.

Geodesy.—**1**, Bowie, W., 1, 2; **2**, Vogler, C. A.

——, Himalayas.—**0**, Burrard, S.

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——, United States (N.E.).—**2**, Berkey, C. P.; Eskola, P., 2.

——, alkali-, New Jersey.—**1**, Hinds, N. E. A.

——, garnet-, S. Australia. — **1**, Tilley, C. E., 2.

——, hornblende-, Silesia. — **1**, Tietze, O., 8.

——, limestone-, Finland. — **1**, Laitakari, A.

——, sericite-, Nassau. — **1**, Schlossmacher, K.

——, vein-.—**2**, Holmquist, P. J.

——. *See also* Augen-gneiss, Granite-gneiss, *&c.*

Gnomonic projection, crystals.—**1**, Palache, C.

Godarville (Hainault).—**1**, Rutot, A., 4.

Godesberg (Rheinland).—**2**, Skœtsch, C.

Goethe, geology & mineralogy &.—**1**, Linck, G.

Goethite.—**2**, Moressée, G.; Muegge, O., 4.

Gogar (Edinburgh). — **0**, Tait, D., 2.

Gold.—**0**, Emmons, W. H.; **1**, Bányai, J., 3; Koller, P., 2; **2**, Beutell, A., 4; Braly, A.; Duparc, L., 2; Hills, R. C., 2.

——, Africa.—**2**, Launay, L. de.

——, Alaska.—**0**, Brooks, A. H.; Capps, S. R., 1–6; Chapin, T., 1, 3, 6; Eakin, H. M., 1–5; Harrington, G. L., 1–4; Johnson, B. L., 1, 2, 4, 5; Maddren, A. G., 1, 3; Mertie, J. B., *fil*, 1–5, 7; Moffit, F. H., 2; Overbeck, R. M., 2; United States, 4, 5, 8; **1**, Cathcart, S. H.; Chapin, T., 2; Overbeck, R. M., 2; United States, 5, 8; **2**, Harrington, G. L., 1, 2; Mertie, J. B., *fil*; United States, 10.

——, Alberta.—**0**, Uglow, W. L., 5.

——, Alps (E.).—**1**, Canaval, R., 2.

——, Belgium.—**1**, Rauw, H. de.

——, Bohemia.—**0**, Želízko, J. V., 5, 11; **2**, Slavík, F.

——, Bolivia.—**0**, Dailey, J. G.; **2**, Pauly, A.

——, British Columbia.—**0**, Camsell, C.; Thomlinson, W.; **1**, Cairnes, C. E.; **2**, Dolmage, V.; Johnston, W. A., 5, 8; Uglow, W. L.

——, Canada.—**0**, Canada, 2; **1**, Canada, 6.

——, Central America.—**0**, Lindgren, W., 2.

——, Chile.—**1**, Pitblado, L.

——, Devon.—**2**, Gordon, W. T., 2.

Gold, Federated Malay States.—**1**, Scrivenor, J. B., 3; **2**, Willbourn, E. S.

——, Germany.—**2**, Quiring, H.; Stauffacher, J., 1, 2; Zœller, A.

——, Loire - Inférieure. — **2**, Kerforne, F. J., 9.

——, Madagascar.—**2**, Lacroix, A., 2.

——, Manitoba.—**0**, Bruce, E. L.; **1**, Alcock, F. J., 1, 7; **2**, Cooke, H. C., 2; Gordon, J. P.

——, Maritime Province.—**2**, Goudkoff, P. P., 4.

——, Mexico.—**2**, Flores, T.

——, Mysore.—**0**, Moore, E. S.; Mysore; **1**, Mysore.

——, New South Wales.—**0**, Harper, L. F., 8; Jones, L.; Morrison, M., 4, 5; **2**, Harper, L. F., 2, 3, 5; Jones, L. J., 2; Morrison, M., 4, 7.

——, New Zealand.—**2**, Henderson, J., 2; Morgan, P. G., 5, 10, 13.

——, Nigeria.—**2**, Pope, W. A.

——, N. America.—**0**, Lindgren, W., 2; **2**, McCann, W. S.

——, Nova Scotia.—**1**, Faribault, E. R.

——, Ontario.—**0**, Bell, J. M., 2; Cooke, H. C., 2; **1**, Burrows, A. G., 1, 2; **2**, Burrows, A. G., 2; Hopkins, P. E.; Thomson, E.

——, Papua.—**0**, Australia, 1, 2; **1**, Australia.

——, Quebec.—**0**, Mailhiot, A.; **2**, Mackay, B. R.

——, Queensland.—**0**, Saint-Smith, E. C.; **1**, Ball, L. C.; Morton, C. C.

——, Rhine Valley.—**1**, Wittich, E., 3.

——, Salzburg.—**2**, Bœhne, E.

——, Saskatchewan.—**0**, Bruce, E. L.

——, S. America.—**0**, Lindgren, W., 2.

——, S. Australia.—**0**, Jack, R. L.; Winton, L. J., 2, 3.

——, S. Rhodesia.—**0**, Maufe, H. B., 7.

——, Sumatra.—**0**, Dieckmann, W.

——, Transylvania.—**1**, Pálfy, M. v., 6; Papp, K. v.

——, Uganda.—**1**, Simmons, W. C., 2; Wayland, E. J., 17.

——, United States.—**0**, Bastin, E. S.; Butler, B. S.; Ferguson, H. G., 2; United States, 4–6, 8; **1**, Bastin, E. S.; United States, 1, 8; **2**, Clark, C. W., 2; Ferguson, H. G.; Knopf, A.; United States, 8, 10, 12.

——, Venezuela.—**0**, Duparc, L., 2.

——, Victoria.—**0**, Baragwanath, W., 2–4; Dunn, E. J.; Herman, H., 2; Howitt, A. M., 1, 2; Kenny, J. P. L., 1–4, 7; Stillwell, F. L.; Whitelaw, H. S., 1–3; **1**, Baragwanath, W.; Junner, N. R., 1, 2; **2**, Baragwanath, W., 2; Easton, J. G., 2; Kenny, J. P. L., 1, 3; Stillwell, F. L., 2, 3.

Gold, W. Australia.—**0**, Clarke, E. de C., 6–13; Feldtmann, F. R., 5; Harris, C. M., 1, 2; Maitland, A. G. 2; Talbot, H. W. B., 1, 6, 7; **1**, Clarke, E. de C., 3; Feldtmann, F. R., 3–5; Jutson, J. T., 4, 5; Talbot, H. W. B.; **2**, Feldtmann, F. R.; Harris, C. M.; Western Australia.

——, Yukon.—**1**, Cockfield, W. E.

——, in leucopyrite, Valais. — **2**, Schmidt, C., 2.

——, world's production.—**2**, Great Britain, 11; Schultze, E., 4.

Gold Coast.—**0**, Gold Coast, 1, 2; **1**, Gold Coast; **2**, Gold Coast, 1–3; Kitson, A. E.

Gold drifts, Australia (S.E.).—**1**, Walcott, R. H.

Goldberg (Hohe Tauern).—**0**, Angerer, H., 4.

Goldschmidt method.—**0**, Palache, C., 4; Wherry, E. T., 3; **1**, Palache, C.; Wherry, E. T.

Gondiswil (Berne).—**1**, Gerber, E., 6; **2**, Studer, T.

Gondwana system.—**0**, Cotter, G. de P.

—— ——, S. hemisphere.—**2**, Keidel, J.; Walther, K., 2.

Gondwanaland.—**1**, Loomis, F. B., 2; **2**, Du Toit, A. L., 2.

Goniatite-beds, Finistère.—**1**, Collin, L.

—— -limestones.—**2**, Andrée, K.

Goniatites.—**2**, Schmidt, H.; Wedekind, R., 4.

——, Carboniferous.—**0**, Pruvost, P.; Wedekind, R.; **1**, Hind, W.

Goniatites, Devonian.—**0**, Wedekind, R.; **1**, Lieber, H.; **2**, Shannon, W. G. St. J.

Goniometer.—**0**, Bascom, F.; Palache, C.; **1**, Stœber, F., 1, 2; **2**, Leiss, C., 2.

Goodnews Bay area (Alaska).—**2**, Harrington, G. L.

Gosau beds, Austria.—**0**, Sander, B., 7; **1**, Ampferer, O.; **2**, Ampferer, O., 5; Schœning, F.

—— ——, Transylvania.—**0**, Lóczy, L. v., *fil.*

Gosau L. area (Upper Austria).—**0**, Kittl, E., 2.

Gosautal (Upper Austria).—**0**, Spengler, E., 2.

Gosford (N.S.W.).—**0**, Morrison, M.

Gotland (Sweden).—**0**, Grabau, A. W.; **1**, Hede, J. E.; **2**, Hede, J. E.; Wiman, C., 2.

Gotlandian. *See* Silurian.

Gotthard Massif (Switzerland).—**0**, Niggli, P., 2.

Göttingen (Prussia).—**0**, Linstow, O. v., 2.

Göttingen University.—**0**, Wagner, P.

Goudreau (Ont.).—**1**, Burrows, A. G.; **2**, Thomson, E.

'Gouf de Cap-Breton' (Bay of Biscay).—**2**, Charcot, J. B.; Gorceix, C.

Gouge.—**2**, Beck, R., 2.

Goul valley (Cantal).—**2**, Boisse de Black, Y., 2, 3.

Goulaine (Loire-Inférieure).—**2**, Ganichaud, B.

Gouy lez-Piéton (Hainault). — **1**, Rutot, A., 4.

Gowganda (Ont.).—**2**, Burrows, A. G.

Goyllarisquizga (Peru).—**2**, Romero, C. L.

Gräben.—**0**, Werveke, L. v., 21; **2**, Weber, M., 2.

——, Rhine R. area.—**0**, Quiring, H.; **1**, Denckmann, A., 3; Grahmann, R.

——, Tanganyika.—**2**, Meyer, O. E.

Graham Land (Antarctica).—**0**, Bodman, G.; Great Britain; **2**, Ferguson, D.

Grahamite, Esthonia.—**2**, Doss, B.

Gran. *See* Esztergom.

Gran Canaria (Canary Is.).—**2**, Smith, W. C.

Gran Sasso (Abruzzi).—**1**, Crema, C., 7.

Granada (Spain).—**2**, Carandell, J.

Granara (Liguria).—**0**, Carrozza, E.; Curiat, D.

Granby (Conn.).—**1**, Palmer, H. S., 2.

Grande Chartreuse (Isère).—**0**, Reboul, P.

Grandipatula.—**2**, Jooss, C. H., 2.

Grandlieu, L. area (Loire-Inférieure). —**2**, Péneau, J., 5.

Granite.—**1**, Elsden, J. V.; **2**, Duparc, L.; Hugi, E.; Lane, A. C.; Liesegang, R. E.

——, Alaska.—**1**, Eakin, H. M.

——, Alps.—**2**, Hugi, E.

——, Antarctica.—**0**, Bodman, G.

——, Argentina.—**1**, Bonarelli, G.

——, Argyll.—**2**, Jehu, T. J.

——, Bombay Presidency.—**1**, Middlemiss, C. S.

——, Bornholm.—**2**, Kalb, G.

——, Carnarvonshire.—**2**, Heard, A., 2.

——, Channel Is.—**1**, Boerlage, J. F. G.; Plymen, G. H., 2, 3; **2**, 'Red Rock.'

——, Devon.—**0**, Worth, R. H.

——, Dobrogea.—**2**, Cantuniari, S., 1, 3; Rotman, D., 2.

——, Dutch E. Indies.—**1**, Krol, L. H.; **2**, Brouwer, H. A., 3, 4, 8.

——, Egypt.—**1**, Schuermann, E., 2; **2**, Mrazec, L., 12, 13; Schuermann, H. M. E., 2.

——, Fennoscandia (Central). — **0**, Sederholm, J. J., 2, 3.

——, Finland.—**1**, Frosterus, B., 3; Wilkman, W. W.

——, France. — **0**, Buecking, H.; Kissling, A.; Wohlfarth, K.; **1**, Buecking, H.; **2**, Kerforne, F. J., 3; Muoret, G.

Granite, French Indo-China.—**2**, Dussault, L. ; Jacob, C.
——. Galicia (Sp.).—**2**, Sampelayo, P. H.
——, Germany.—**0**, Klemm, G., 11 ; Pietzsch, K. ; **1**, Beck, R. ; Berg, G. ; Finckh, L. ; Guerich, G. ; Muehlen, L. v. z., 2 ; **2**, Beger, P. J., 2 ; Doss, B., 2.
——, Italy.—**1**, Brusoni, A., 2 ; Repossi, E., 9, 11 ; **2**, Lohmann, F.
——, Madagascar.—**2**, Lacroix, A., 2, 3.
——, Malaya.—**2**, Romang, M. ; Willbourn, E. S.
——, Manchuria.—**2**, Murakami, H.
——, Manitoba.—**1**, Alcock, F. J., 6 ; **2**, Cooke, H. C., 2.
——, Mexico.—**2**, Kratzert, J.
——, Morocco.—**0**, Coëmme, S., 2.
——, Nigeria.—**0**, Williams, G. W. ; **1**, Falconer, J. D. ; Williams, G. W. ; **2**, Wilson, R. C., 4.
——, Norway.—**1**, Bugge, C. ; Holmsen, G., 2 ; Oxaal, J. ; Rekstad, J.; **2**, Goldschmidt, V. M., 6, 10.
——, Palestine.—**1**, Fuchs, E.
——, Peru.—**1**, Douglas, J. A.
——, Portuguese E. Africa. — **0**, Holmes, A., 11.
——, Pyrenees.—**1**, Stuart-Menteath, P. W.
——, Quebec.—**1**, Dresser, J. A.
——, Slovakia.—**1**, Ferenczi, S., 1, 2 ; Kulcsár, K., 3; Vigh, J., 3.
——, S. Africa.—**1**, Cloos, H. ; Hall, A. L. ; Wagner, P. A., 5.
——, S. Australia.—**0**, Tilley, C. E., 1, 2 ; **1**, Browne, W. R.
——, S. Rhodesia.—**1**, Macgregor, A. M.
——, Styria.—**0**, Heritsch, F., 3 ; **1**, Kittl, E.
——, Sweden.—**0**, Hœgbom, I. ; **1**, Hœgbom, A. G. ; **2**, Asklund, B. ; Lindroth, G. T. ; Sundius, N., 1, 2.
——, Switzerland.—**0**, Hammer, W., 4 ; Lotze, R. ; **1**, Swiderski, B. ; **2**, Kœnigsberger, J.
——, Tasmania.—**2**, Nœtling, F.
——, Tatra Mts. — **2**, Morozewicz, J.
——, United States.—**0**, Fath, A. E., 2 ; **1**, Clapp, C. H. ; **2**, Berkey, C. P. ; Miller, W. J. ; Moore, R. C. ; Washington, H. S.
——, Upper Senegal & Niger.—**0**, Hubert, H., 5.
——, Victoria.—**2**, Dunn, J. A., 2 ; Keble, R. A., 2.
——, W. Australia.—**0**, Talbot, H. W. B., 5 ; **1**, Jutson, J. T., 2 ; Talbot, H. W. B.
——, aplitic, Norway.—**2**, Foslie, S., 3.
——, ‘ Belgian.’—**2**, Herrmann, O.
——, monazite-, Rheinland.—**2**, Busz, K., 2.
——. *See also* Microgranite.
Granite-gneiss, S. Australia.—**1**, Tilley, C. E.
——-——, Styria.—**0**, Stiny, J. ; **2**, Stiny, J., 5.
——-——, Sweden.—**2**, Eckermann, H. v. ; Lindroth, G. T. ; Sundius, N., 2.
——-porphyry, Dobrogea.—**2**, Rotman, D., 2.
——-——, Germany.—**0**, Klemm, G. ; **1**, Zimmermann, E., I, 3 ; **2**, Erdmannsdœrffer, O. H.
Granitic pegmatite. *See* Pegmatite.
Granitite, Congo Belge.—**1**, Grosse, E.
——, Egypt.—**1**, Schuermann, E., 2 ; **2**, Schuermann, H. M. E., 2.
——, Germany.—**2**, Beger, P. J. Gagel, C.
Granodiorite, Celebes.—**2**, Brouwer, H. A., 7.
——, Peru.—**0**, Douglas, J. A.
——, United States (N.E.).—**1**, Bascom, F., 2.
——, Victoria.—**1**, James, A. V. G.
Granophyre, Carnarvonshire. — **2**, Heard, A., 2.
——, Merioneth.—**1**, Cox, A. H.
——, S. Australia.—**1**, Browne, W. R.
——, Transvaal.—**1**, Wagner, P. A., 5.
——, albite-, Cumberland.—**0**, Holmes, A., 8.
Gransee (Brandenburg).—**1**, Gagel, C., 2.
‘ Granulatenkreide,’ Pomerania. — **1**, Bœhm, J., 12.
Granulite, Jersey.—**1**, Boerlage, J. F. G.
——, Loire-Inférieure. — **2**, Péneau, J., 4.
——, Lower Austria.—**2**, Marchet, D.
——, S. Victoria Land.—**2**, Smith, W. C., 2, 3.
——, pyroxene-.—**2**, Bergt, W., 2.
Granulitgebirge (Saxony).—**2**, Bergt, W., 1–3 ; Pietzsch, K.
Graphite.—**0**, Hackl, O., 6 ; Spence, H. S. ; United States, 6, 8 ; **1**, Donath, E., 2 ; United States, 9.
——, Bohemia.—**0**, Želízko, J. V., 8.
——, E. Prussia.—**0**, Harbort, E.
——, Madagascar.—**2**, Lumb, A. D.
——, Mexico.—**0**, Paredes, T., 2.
——, New Zealand.—**0**, Morgan, P. G., 3.
——, Ontario.—**1**, Wilson, M. E.
——, Quebec.—**0**, Anon., 46.
——, S. Australia.—**0**, Jack, R. L., 2 ; **1**, Clark, T. H., 2 ; Tilley, C. E., 4.
——, Styria.—**2**, Bœhne, E.
——, Travancore.—**0**, Chacko, I. C. ; Tipper, G. H., 3 ; **1**, Stuart, M., 2.
——, United States.—**0**, Prouty, W. F.; United States, 5 ; **2**, United States, 9, 11, 13.
——, W. Australia.—**0**, Blatchford, T., 2.

Graphite, Yeniseisk.—**0**, Anon., 28.
——, analyses.—**0**, Eichleiter, C. F., 1, 4.
——, origin.—**1**, Alling, H. L.; Clark, T. H.; Mohr, H., 3; Winchell, A. N.; **2**, Jensen, H. I.; Spence, H. S.; Tilley, C. E., 4.
Graphite-rocks, Moravia.—**0**, Hackl, O., 2.
—— ——, S. Australia.—**1**, Tilley, C. E., 4.
—— -schists. *See* Schists.
Graphs, comparison of minerals &.—**0**, Simpson, E. S., 3.
——, in palæontology.—**1**, Swinnerton, H. H.
——, thickness of strata &.—**2**, Mertie, J. B., *fil*, 3.
Grappa, Mte. (Venetia).—**1**, Taramelli, T., 8.
—— -beds, Algeria.—**2**, Ehrmann, F., 2.
—— ——, Silesia.—**1**, Guerich, G., 2.
Graptolite horizons, N. America (W.).—**1**, Burling, L. D.
Graptolitoidea.—**1**, Jones, H. C., 2; **2**, Elles, G. L., 4; Hundt, R., 1, 3, 5; Ruedemann, R., 2.
——, Cambrian.—**0**, Keble, R. A.; Taricco, M.
——, Ordovician.—**0**, Bassler, R. S.; Butler, B. S.; Keble, R. A.; **1**, Hall, T. S.; **2**, Elles, G. L., 2.
——, Palæozoic.—**0**, Mansuy, H., 6.
——, Silurian.—**0**, Reed, F. R. C.; **1**, Dollé, L., 2; **2**, Hundt, R., 2; Ruedemann, R., 6.
Graubünden (Switzerland).—**2**, Buxtorf, A., 4; Mueller, F. P., 1, 3; Schmidt, C., 3.
—— (——), geology.—**0**, Cornelius, H. P.; Staub, R., 3, 4; Truempy, D.; Wilckens, O., 2, 8; **1**, Mylius, H.; Staub, R., 1, 5, 6, 8.
—— (——), glaucophane-rocks.—**1**, Staub, R., 2, 9; **2**, Wilhelm, O.
—— (——), petrography.—**0**, Buxtorf, A., 2; Hammer, W., 4; **1**, Buxtorf, A.; **2**, Cornelius, H. P., 6; Wilhelm, O., 2.
—— (——), tectonics.—**0**, Ampferer, O., 8; Spitz, A., 6; Wilckens, O., 4; **1**, Arbenz, P.; Staub, R., 7, 11; **2**, Arbenz, P., 3.
—— (——). *See also* Mittelbünden & Rhätikon.
Graupen (Bohemia).—**0**, Beck, R.
Grauwacke, Austria.—**0**, Angel, F.; **2**, Schmidt, W.
——, Belgium (S.).—**2**, Asselberghs, E., 5.
——, Germany.—**0**, Pietzsch, K., 2; **1**, Denckmann, A., 2; Muegge, O.
——, Jersey.—**1**, Plymen, G. H., 2.
——, Vosges.—**1**, Buecking, H.
——, the term.—**1**, Walther, K.
——. *See also* Slate-greywacke & Schists.
Gravels, Belgium.—**1**, Lorié, J.
——, Berne.—**1**, Nussbaum, F.; **2**, Nussbaum, F., 2.
——, Buckinghamshire.—**2**, Treacher, Ll.
——, Cambridge, area.—**0**, Marr, J. E.; **1**, Whealler, J. E. A.
——, Durham.—**0**, Woolacott, D.
——, Essex.—**2**, Wooldridge, S. W.
——, Germany.—**0**, Sauer, A., 5; **1**, Kurtz, E., 2; Schrœder, H., 7; **2**, Dietrich, W. O., 5.
——, Gloucestershire.—**0**, Baddeley, St. C.
——, Hampshire.—**2**, Bury, H., 2.
——, Hertfordshire.—**0**, Barrow, G.; Gilbert, C. J.; **2**, Barrow, G.
——, Holland.—**1**, Kurtz, E., 2.
——, Kent.—**0**, Leach, A. L., 2, 4.
——, London Basin.—**0**, Barrow, G.
——, New Zealand.—**0**, Speight, R., 2.
——, Ontario.—**1**, Keele, J., 4.
——, Poland.—**1**, Smolenski, J.
——, Surrey.—**1**, Turner, E. A.; Whitaker, W., 4.
——, United States.—**0**, Collier, A. J., 8; Dake, C. L.; Kay, G. F.; **1**, Lees, J. H.; Thwaites, F. T., 2; United States, 9; **2**, Hyde, J. E.
——, diamantiferous, S. Rhodesia.—**1**, Macgregor, A. M.
——, glacial, Wisconsin.—**1**, Thwaites, F. T.
——, metalliferous, Alaska.—**0**, Chapin, T., 6.
——, plateau, Wiltshire.—**1**, Varney, W. D.
——, Tertiary, Aberdeenshire.—**1**, Flett, J. S., 2.
——. *See also* River-gravels & Sponge-gravel beds.
Gravigrada.—**0**, Stock, C., 2.
Gravitational drift, rock-débris.—**1**, Jutson, J. T., 3.
Gravity anomalies.—**0**, Ampferer, O., 13; Zeil, G., 3; **1**, Losada y Puga, C. de; **2**, Kossmat, F., 2; Lane, A. C., 2.
—— measurements.—**0**, Berroth, A.; Heim, Albert, 2; Tams, E.
—— observations.—**0**, Burrard, S.; **2**, Putnam, G. R.
—— variations.—**2**, Lenox-Conyngham, G. P.; Wright, C. S.
Grays (Essex).—**0**, Thompson, P.; **1**, Moir, J. R., 8; Prestwich, J.
Graz (Styria).—**0**, Aigner, A.; **1**, Heritsch, F., 1–3; **2**, Heritsch, F.; Penecke, K. A.
Great Barrier I. (N.Z.).—**2**, Bartrum J. A.
Great Basin (U.S.A.).—**2**, Davis, W. M., 5; Meinzer, O. E.; Troxell, E. L., 6.
—— —— (——), faults & scarps.—**0**, Louderback, G. D., 4, 5.
—— —— (——), water.—**0**, Grover, N. C., 2–4; **2**, Grover, N. C., 2.

Great Britain, barytes.—**2**, Wilson, G. V., 2.
—— ——, Cambrian.—**0**, Howell, B. F.
—— ——, coal.—**0**, Great Britain, 5 ; **2**, Drakeley, T. J.
—— ——, Coal Measures.—**0**, Pruvost, P., 4.
—— ——, fire-clays.—**1**, Howe, J. A.
—— ——, Geological Survey. — **0**, Great Britain, 2 ; **1**, Great Britain, 3 ; **2**, Great Britain, 6.
—— ——, glacial & post-glacial deposits.—**0**, Lamplugh, G. W.
—— ——, *Hippopotamus* in. — **2**, Reynolds, S. H., 2.
—— ——, iron.—**0**, Hatch, F. H. ; **2**, Great Britain, 20 ; Louis, H.
—— ——, man.—**0**, Dawkins, W. B.
—— ——, mines & quarries. — **0**, Great Britain, 3, 4.
—— ——, moulding-sands.—**0**, Boswell, P. G. H., 3.
—— ——, Ordovician.—**2**, Kiær, J.
—— ——, palæobotany in. — **0**, Seward, A. C.
—— ——, petroleum.—**2**, Veatch, A. C.
—— ——, refractories. — **0**, Lamplugh, G. W., 35 ; Thomas, Herbert H., 2.
—— ——, Silurian-Devonian boundary.—**2**, Leriche, M., 6 ; Stamp, L. D., 4.
—— ——, underground temperatures.—**2**, Graham, J. I.
—— ——, Valentian.—**1**, Jones, O. T.
—— ——, witherite. — **2**, Wilson, G. V., 2.
—— ——. *See also* England, *&c.*
Great Plains (U.S.A.).—**0**, Collier, A. J., 8 ; Darton, N. H., 5 ; **2**, Troxell, E. L., 6.
Great Slave L. area (N.-W. Terr.)—**1**, Hume, G. S.
Greci (Dobrogea).—**2**, Rotman, D., 2.
Greece.—**1**, Renz, C., 1, 2 ; **2**, Négris, P., 3 ; Niculescu, C., 2.
——, mineral resources.—**0**, Dœlter, C. ; Kténas, C. A. ; **2**, Boydell, H. C.
——, Tertiary.—**0**, Arabu, N. ; **1**, Négris, P., 4 ; **2**, Oppenheim, P., 3.
——. *See also* Imbros I., Macedonia, *&c.*
Green Island (N.Z.).—**2**, Grange, L. I.
Green rocks, Forfar-Kincardine.—**0**, Campbell, R.
Greenhow Hill (Yorks).—**0**, Varvill, W. W.
Greenland.—**0**, Holmes, A., 10 ; **2**, Koch, L., 2.
—— (N.).—**2**, Amdrup, G. C.
—— (N.W.).—**1** & **2**, Koch, L.
—— (S.).—**2**, Amdrup, G. C., 2.
—— (W.).—**2**, Mercanton, P. L. ; Seward, A. C., 2.
Greensand.—**0**, Hicks, W. B.
——, United States (E.).—**0**, Ashley, G. H., 2 ; Mansfield, G. R., 4.
——. *See also* Lower Greensand *&* Upper Greensand.
Greensand marl, New Jersey.—**1**, New Jersey.
Greenstone schists. *See* Schists.
Greenstones, Alaska.—**1**, Eakin, H. M.
——, Leicestershire.—**1**, Richardson, W. A., 3.
——, Norway.—**1**, Carstens, C. W.
——, Victoria. — **2**, Ferguson, W. H. ; Howitt, A. M. ; Kenny, J. P. L., 2.
——, W. Australia.—**0**, Clarke, E. de C., 11–13 ; Feldtmann, F. R., 5 ; Talbot, H. W. B., 5, 7 ; **1**, Clarke, E. de C., 3 ; Talbot, H. W. B.
——, basaltic, S. Rhodesia.—**2**, Macgregor, A. M.
——. *See also* ‘ Roches vertes.’
Greifswalder Oie (Pomerania).—**1**, Linstow, O. v., 8.
Greisen, Malaya.—**2**, Romang, M.
——, Saxony.—**0**, Beck, R., 2.
Gresse (Isère).—**1**, Hollande, D. ; Kilian, W., 5.
Gressoney valley (Piedmont).—**0**, Sacco, F., 32.
Greta (N.S.W.).—**2**, Robertson, J. R. M.
Grey Wethers. *See* Sarsen stones.
Greywacke. *See* Grauwacke.
Grinshill (Salop).—**2**, Pocock, R. W.
Grip limestone, Maine-et-Loire.—**2**, Couffon, O.
Griqualand East (Cape Prov.).—**1**, Prior, G. T., 2.
Grison, Armorican Massif.—**2**, Kerforne, F. J., 5.
Grits, Carboniferous, N. Wales.—**0**, Acton, T. A.
Gröba (Saxony).—**2**, Chirvinski, P., 3.
Gröditzberg (Silesia).—**1**, Kuehn, B.
Grodno (Poland).—**2**, Rettschlag, W.
Groenendael (Brabant).—**1**, Halet, F., 2.
Gross-Dirschkeim (E. Prussia).—**1**, Meyer, E., 4.
Gross-Fragant (Carinthia).—**2**, Reitzenstein, W. v.
Gross - Justin (Pomerania). — **1**, Schulte, L., 2.
Gross-Lichterfelde (Brandenberg). — **0**, Hucke, K.
Gross-Ullersdorf (Moravia). — **2**, Kretschmer, F., 1, 5.
Grossenlüder (Hesse). — **1**, Blanckenhorn, M., 5.
Grossreifling (Styria).—**2**, Machatschki, F.
Grossularite.—**2**, Buddington, A. F.
Grove Park (Kent).—**0**, Stamp, L. D., 2.
Grundlsee (Styria).—**0**, Geyer, G., 3.
Gryphæa.—**2**, Douvillé, H., 3 ; Trueman, A. E., 3.

Grythytte (Sweden).—**2**, Sundius, N., 3.
Guà basin (Venetia).—**2**, Fabiani, R., 4.
Guadalajara (Spain).—**1**, Gomez, J. R. ; Pérez-Cossio, L.
Guano.—**1**, Winton, L. J. ; **2**, Power, F. D.
Guayama (Porto Rico).—**0**, Hodge, E. T.
Guchab (S.-W. Afr.).—**1**, Henglein, M.
Gudbrandsdal (Norway).—**1**, Holmsen, G.
Gudensberg (Hesse).—**1**, Blanckenhorn, M., 2.
Guernsey.—**1**, Boerlage, J. F. G. ; Chilcott, G. B. ; **2**, Plymen, G. H., 2.
Guerrero (Mexico).—**1**, Burckhardt, C., 2 ; Paredes, T. ; **2**, Villafaña, A.
Guffert, Mt. (Tyrol).—**2**, Leuchs, K., 4.
Guggiate (Lombardy).—**1**, Repossi, E., 5.
Guglielmo cave (Lombardy).—**1**, Del Vecchio, C., 2.
Guglielmo, Mte. (Lombardy).—**0**, Tilmann, N. ; **2**, Buelow, E. U. v., 2.
Guiana (British).—**1**, British Guiana ; **2**, Case, G. O.
Guiana (Dutch).—**2**, Voit, F. W.
Guiers valley (Isère-Savoie).—**1**, Combaz, P.
Guipúzcoa (Spain).—**0**, Kindelan, V. ; **2**, Lamare, P. ; Stuart-Menteath, P. W.
Gulf Coastal Plain.—**0**, Golyer, E. de ; Lucas, A. F. ; Matson, G. C., 2 ; **2**, Barton, D. C. ; Matteson, W. G.
Gulf of California.—**0**, Paredes, T.
Gulf of Lions (Mediterranean). — **2**, Thoulet, J.
Gulf of Mexico.—**1**, Wells, R. C.
Gulf of Suez.—**1**, Gregory, J. W., 3.
Gulgong (N.S.W.).—**0**, Jones, L.
Gumbotil.—**0**, Kay, G. F., 2 ; **1**, Kay, G. F.
Gümligen (Berne).—**1**, Gerber, E., 3.
Gurnigel (Berne).—**2**, Gerber, E.
Gurp(Gironde).—**1**, Degrange-Touzin, A.
Gurten (Berne).—**1**, Gerber, E., 4.
Guttannen (Berne).—**1**, Hugi, E.
Gymnites.—**2**, Diener, C., 6.
Györ (Hungary).—**0**, Horusitzky, H., 2.
Gypsum.—**0**, United States, 5, 6, 8 ; Werveke, L. v., 13 ; **1**, Guébhard, A., 2 ; Newland, D. H. ; Richardson, W. A., 5 ; Wybergh, W. ; **2**, Berg, G., 4 ; Durand, J. F. ; Newland, D. H., 3.
——, Dalmatia.—**0**, Kerner, F. v., 9.
——, Ebro basin.—**1**, Born, A.
——, France.—**0**, Dollfus, G. F., 9 ; Guébhard, A., 2 ; **2**, Bertrand, L., 2 ; Durand, J. F., 2 ; Mengaud, L.
Gypsum, Germany (N.).—**0**, Gagel, C., 3.
——, India (N.W.).—**1**, Pascoe, E. H.
——, Norway.—**0**, Vogt, T., 3.
——, Nottinghamshire.—**0**, Richardson, W. A., 2.
——, Poland.—**1**, Beyschlag, F.
——, S. Australia.—**1**, Jack, R. L., 6.
——, United States.—**0**, Lupton, C. T. ; **1**, Stone, R. W. ; United States, 9 ; **2**, Barton, D. C. ; Newland, D. H., 2 ; United States, 11, 13.
——, crystallography.—**0**, Buttgenbach, H., 2 ; **1**, Ehringhaus, A. ; Rubens, H. ; **2**, Cathrein, A.
——, dehydration.—**0**, Gaudefroy, C. ; **1**, Grengg, R.
——, origin.—**1** & **2**, Wilder, F. A.
Gyraulus.—**1**, Geyer, D. ; **2**, Wenz, W., 4.

H

Habichtswald (Hesse).—**2**, Berns, A.
Haddingtonshire.—**2**, Macgregor, A. G.
Hadrosauridæ.—**1**, Lambe, L. M.
Hæmatite.—**0**, Bellière, M., 2 ; Merwin, H. E., 2.
——, Great Britain.—**1**, Greenwood, H. W.
——, Hesse-Nassau. — **2**, Hummel, K., 2 ; Michels, F.
——, Lake District.—**0**, Kendall, J. D.
——, Lancashire.—**0**, Smith, B.
——, Ontario.—**2**, Wright, J. F.
——, Scotland.—**0**, Macgregor, M., 2.
——, Transvaal.—**2**, Wagner, P. A.
——, Transylvania.—**1**, Zimányi, K.
——, Wales (S.).—**0**, Kendall, J. D., 2 ; Vivian, S.
——, crystallography.—**0**, Aminov, G., 2 ; Foshag, W. F., 5 ; **1**, Becke, F. ; **2**, Hawkins, A. C., 2 ; Johnsen, A., 9 ; Veit, K.
——, titaniferous.—**1**, Bianchi, A., 4.
——. *See also* Chamosite-hæmatite-pisolite.
Hague. *See* La Hague.
Haigerloch (Hohenzollern). — **1**, Schmierer, T., 1, 2.
Hainault (Belgium).—**0**, Anthoine, R. ; Bellière, M., 4 ; **1**, Capiau, H. ; Rutot, A., 3 ; Wen-Hao, W.
——(——), coal-basin.—**2**, Delbrouck, M. ; Dubois, J. ; Racheneur, F. ; Renier, A., 1, 3.
—— (——), Cretaceous.—**0**, Cornet, J., 2, 4 ; **2**, Bataille, L., 1, 2 ; Cornet, J., 1–4, 6 ; Schellinck, F., 2.
—— (——), Palæozoic.—**0**, Cambier, R.; Cornet, J., 3 ; Dubois, J. ; **1**. Leriche, M. ; **2**, Camerman, M. C. ; Leriche, M., 3.

Hainault (Belgium), physiography.—**1**, Stainier, X., 3 ; Stevens, C. ; **2**, Cornet, J., 5.
—— (——), stratigraphy.—**0**, Cornet, J. ; **1**, Hallez, H., 2 ; Rutot, A., 4, 5 ; Stainier, X., 5 ; **2**, Schellinck, F.
—— (——), tectonics. — **0**, Fourmarier, P., 9 ; **1**, Fourmarier, P., 5 ; **2**, Cambier, R.
Hainburg (Lr. Austria).—**0**, Toborffy, G. v.
Haine R. area (Hainault).—**1**, Hallez, H., 2 ; **2**, Cornet, J.
Haiti (W. Indies).—**2**, Miller, G. S., *fil* ; Wetmore, A., 2 ; Woodring, W. P.
Halberstadt (Prussia).—**1**, Schrœder, H., 6.
Halemaumau (Hawaii).—**1**, Jagger, T. A., 2, 3.
Haliserites.—**1**, Pohlig, H.
Halite, Harz.—**2**, Rózsa, M., 4. *See also* Sylvite-halite.
Hall, J., experimental geology &.—**2**, Flett, J. S.
Hall (Tyrol).—**2**, Ampferer, O., 3.
Halland (Sweden).—**2**, Halden, B. E., 2.
Halle (Prussia).—**1**, Scupin, H., 1, 2 ; **2**, Beyschlag, F., 10.
Hälleflinta, Sweden.—**2**, Sundius, N.
Halloysite.—**0**, Whitaker, W., 4 ; **1**, Bucher, W. H., 2 ; **2**, Granger, A.
Hallstatt (Upper Austria).—**0**, Spengler, E., 3.
Hallstätter limestone, Austria.—**0**, Diener, C., 5 ; Geyer, G., 2 ; **2**, Diener, C., 8.
Haloes, pleochroic.—**0**, Koller, P. ; **1**, Gudden, B. ; **2**, Grengg, R. ; Joly, J., 1, 2.
Halorella-limestone, Upper Austria. —**0**, Kittl, E., 2.
Hamberge (Lübeck).—**1**, Schlunck, J.
Hambergite.—**1**, Ehringhaus, A.
Hamburg area (Germany). — **1**, Schlunck, J., 5 ; Wolff, W., 4.
Hamilton (Lanarksh.).—**0**, Clough, C. T.
Hampden beds. New Zealand.—**0**, Marshall, P., 1, 4.
Hampshire.—**1**, Reid, C. ; Stamp, L. D., 6 ; White, H. J. O., 2 ; **2**, Bury, H., 2 ; Chandler, M. E. J., 3 ; Smith, R. A.
——, chines & cliffs.—**0**, Bury, H. ; Carus-Wilson, C. ; Ord, W. T. ; **2**, Bury, H. ; Ord, W. T., 2.
Hampshire basin.—**2**, Hooley, R. W. ; Ord, W. T.
Hamstead (Staffs.).—**2**, Kay, H.
Hamulus.—**2**, Wade, B.
Hanau (Hesse-Nassau).—**1**, Wenz, W.
Hanover (Germany).—**1**, Grupe, O., 5 ; Kuhlmann, L. ; Stille, H. ; **2**, Wilckens, O., 3.
—— (——), Cretaceous.—**1**, Bœhm, J., 5 ; **2**, Ernst, W. ; Pompeckj, J. F., 5.
Hanover (Germany), mineral resources.—**1**, May, W. ; **2**, Gæbert, C. ; Stille, H.
—— (——), Quaternary.—**1**, Gagel, C., 9 ; Grupe, O., 3, 6 ; Harbort, E. ; Stoller, J., 1, 3–5 ; Wildvang, D. ; Wolff, W., 3.
—— (——), stratigraphy.—**1**, Bode, A., 3 ; Grupe, D. ; Haack, — ; Kœrt, W. ; Stoller, J., 2 ; **2**, Gœbel, F.
——. *See also* Bremen area *&* Hamburg area.
Haplopleuroceras. — **0**, Buelow, K. v.
Hardness, minerals and rocks.—**0**, Rosiwal, A. ; **1**, Holmquist, P. J., 9 ; **2**, Holmquist, P. J., 2 ; Kalb, G., 8.
——, water.—**2**, Sutton, L.
Harmotome.—**2**, Stoklossa, G.
Harpes.—**2**, Richter, R., 4.
Hartsalzkainitite.—**2**, Rózsa, M.
Hartwell clay, Buckinghamshire.—**1**, Neaverson, E., 2.
Harz (Germany).—**0**, Kurtz, — ; **1**, Bode, A. ; Frey, G. ; **2**, Baumgærtel, B. ; Davis, W. M.
—— (——), earth-movements. — **0**, Cloos, H. ; **1**, Erdmannsdœrffer, O. H. ; Grupe, O., 6 ; Linstow, O. v., 2.
—— (——), igneous & metamorphic rocks. — **0**, Milch, L. ; **1**, Denkmann, A., 2 ; Muegge, O., 2 ; **2**, Erdmannsdœrffer, O. H., 1, 4 ; Kœhler, G. ; Muegge, O., 10.
—— (——), mineral resources.—**1**, Grumbrecht, A. ; Rubach, K. ; **2**, Bentz, G. ; Erdmannsdœrffer, O. H., 3 ; Lachmann, R., 2 ; Rózsa, M., 4 ; Stahl, A., 1–3.
—— (——), Palæozoic.—**1**, Bode, A., 2 ; Dahmer, G., 3 ; Denckmann, A., 4 ; Weigelt, J.
Harzburg (Prussia).—**2**, Fromme, J., 1, 3 ; Uhlig, J., 2.
Harzburgite, Prussia.—**2**, Fromme, J., 3.
——, Sweden.—**2**, Eckermann, H. v.
Hastings (Sussex).—**0**, Ward, E. M. ; **2**, Woodward, B. B.
Hastingsite.—**2**, Quensel, P.
Hattingen (Westphalia).—**1**, Bærtling, R., 1, 3.
Hauenstein (Basel).—**0**, Muehlberg, F. ; **1**, Leuthardt, F. ; **2**, Leuthardt, F., 1, 2.
Hauerite.—**2**, Beutell, A., 12.
Hauraki Plains (N.Z.).—**0**, New Zealand, 3 ; **2**, Henderson, J., 3.
Hausmannite.—**0**, Miser, H. D., 3 ; **2**, Muegge, O., 6.
Haut-Rhin (France).—**2**, Floquet, —.
Haute-Garonne (France).—**0**, Lepape, A. ; **1**, Bertrand, L., 6.
Haute-Loire (France). *See* Margeride Mts.

Haute-Savoie (France). — **1**, Doncieux, L. ; Kilian, W., 4 ; Lugeon, M., 8 ; Moret, L. ; **2**, Arsonval, — d' ; Moret, L.

—— - —— (——), geology. — **0**, Collet, L. W., 1, 4 ; Lugeon, M., 5 ; Moret, L., 2 ; Paréjas, E., 2 ; **1**, Collet, L. W. ; Douvillé, H., 11 ; Paréjas, E., 2, 3 ; **2**, Buxtorf, A., 2 ; Paréjas, E.

—— - —— (——), igneous & metamorphic rocks.—**0**, Oulianov, N., 3, 4 ; **1**, Douvillé, H., 14.

—— - —— (——), Mesozoic. — **1**, Paréjas, E., 1, 4 ; **2**, Moret, L., 2.

—— - —— (——), tectonics. — **0**, Moret, L. ; **2**, Paréjas, E., 2, 3

Haute-Vienne (France).—**0**, Couégnas, J. ; Dollfus, G. F., 3 ; **2**, Mouret, G., 2.

Hautes-Alpes (France).—**0**, Termier, P., 2, 9, 10 ; **1**, Kilian, W., 7 ; Lory, P., 1, 2.

Hautes-Pyrénées (France).—**1**, Lapparent, J. de ; **2**, Viennot, P., 3.

Haux (Gironde).—**1**, Labrie, —.

Haüy, R. J., biography.—**2**, Weber, L., 4.

Hawaii.—**0**, Powers, S., 3 ; **2**, Washington, H. S., 3, 13.

——, volcanism.—**0**, United States ; **1**, Cross, W. ; Jaggar, T. A., 1–3 ; Washington, H. S., 3 ; **2**, United States.

——, water.—**0**, Grover, N. C., 7 ; **1**, Grover, N. C.

——. *See also* Kauai *&* Kilauea.

Hawera (N.Z.).—**2**, Marshall, P., 3.

Hawke's Bay (N.Z.).—**0**, Marshall, P., 3 ; **1**, Henderson, J., 5 ; **2**, Morgan, P. G., 7, 8 ; Ongley, M., 1, 2.

Headley (Surrey).—**1**, Young, G. W.

Headon beds, Hampshire.—**1**, Reid, C. ; White, H. J. O., 2 ; **2**, Chandler, M. E. J., 3.

Heads of Ayr (Ayrsh.).—**0**, Tyrrell, G. W.

Heart Mountain (Wyo.).—**0**, Hewett, D. F., 2.

Heat, minerals. &.—**2**, Samojlov, J.

——. *See also* Natural steam *&* Thermal expansion.

Heathcotian, Victoria.—**0**, Teale, E. O.

Heathfield (Sussex).—**0**,Great Britain, 5 ; McLennan, J. C., 2 ; **2**, Milner, H. B., 3.

Heavy minerals.—**2**, Milner, H. B.

—— ——, Belgium. — **0**, Anten, J., 5 ; **2**, Anten, J., 4.

—— ——, Florida.—**2**, Buttgenbach, H., 2.

—— ——, in gravels, S. Rhodesia.—**1**, Macgregor, A. M.

—— ——, Idaho.—**2**, Shannon, E. V., 8.

—— ——, Millstone Grit, Yorkshire. —**0**, Gilligan, A.

Heavy minerals, Pennant series, Glamorgan.—**2**, Heard, A.

—— ——, Pliocene, S.W. England.—**1**, Milner, H. B.; **2**, Milner, H. B., 2.

—— ——, in sands.—**0**, Boswell, P. G. H., 4 ; **2**, Kennedy, N. W.

—— ——, in sandy sediments.—**0**, Déverin, L.

—— ——, in soils.—**2**, Marchand, B. de C.

Hebrides. *See* Iona I., Skye, *&c.*

Hechingen (Hohenzollern).—**1**, Mueller, H., 1, 2 ; Schmierer, T., 3.

Hecklingen (Anhalt).—**0**, Becker, A.

Heclahook system, Bear I.—**0**, Holtedahl, O., 13 ; **2**, Holtedahl, O., 3.

Hecticoceras.—**0**, Douvillé, R.

Hedenbergite. *See* Ægirite - hedenbergite.

Hegau (Baden).—**2**, Niggli, P., 9, 10 ; Reck, H., 4, 6.

Heidelberg (Germany).—**1**, Bender, G.

Heidelberg (Transvaal).—**2**, Hatch, F. H., 2 ; Mellor, E. T., 2 ; Rogers, A. W., 1, 3 ; Wybergh, W. J.

Heilbronn (Württemberg).—**0**, Fraas, E., 2 ; Pfeiffer, W. ; Stettner, G. ; **2**, Schmidt, A. ; Stettner, —, 1, 2.

Heiligendorf (Prussia). — **1**, Mestwerdt, A.

Heiligenstadt (Lr. Austria).—**0**, Eichleiter, C. F., 3.

Hejaz (Arabia).—**1**, Fuchs, E. ; Kober, L.

Helaletes.—**2**, Troxell, E. L., 3.

Helderberg limestone, E. United States——**0**, Holden, R. J. ; Reeside J. B., *fil.*

Helgeland (Norway).—**0**, Oxaal, J., 2 ; Rekstad, J.

Helgustadir (Iceland).—**0**, Eiriksson, H. H., 2.

Heligoland, North Sea.—**1**, Linstow, O. v., 10 ; Stolley, E., 1, 2.

Heliolites.—**1**, Ball, L. C.

—— *barrandei* beds, Styria.—**1**, Heritsch, F., 1–3.

Heliolitida.—**2**, Kiær, J., 2.

Helium.—**0**, McLennan, J. C., 1, 2 ; Moureu, C. ; **1**, Rogers, G. S., 2 ; **2**, Leonard, A. G. G.

Helix.—**0**, Oppenheim, P., 3 ; Thuma, F., 2.

——-beds, Alpes-Maritimes. — **1**, Maury, E., 2.

Helsinkite, Finland.—**0**, Laitakari, A., 2.

Helvetian, N.W. Africa.—**1**, Joleaud, L., 2 ; **2**, Lecointre, G.

Hemelingen (Hanover).—**1**, Wolff, W., 3.

Hemiptera.—**0** & **1**, Tillyard, R. J.

Hendaye (Basses-Pyrénées).—**0**, Lapparent, J. de ; **1**, Douvillé, H., 13.

Hepburn (Vict.).—**0**, Skeats, E. W.

Heraclea (Asia Minor).—**1**, Franchi, S., 2.

Hérault (France).—**2**, Gennevaux, M.
Herb L. area (Manitoba).—**1**, Alcock, F. J., 7.
Hercynian gravels, Prussia. — **1**, Schrœder, H., 7.
—— tectonics.—**1**, Winterfeld, F.
—— ——, Alps.—**0**, Oulianov, N., 2 ; **1**, Cornelius, H. P., 3.
—— ——, France.—**1**, Paréjas, E., 3 ; **2**, Ferronnière, G., 3 ; Yung, J.
—— ——, Germany.—**1**, Ahlburg, J., 4 ; **2**, Bubnoff, S. v. ; Grupe, O. ; Haarmann, E., 2.
—— ——, Oklahoma.—**1**, Moore, R. C.
——. *See also* Subhercynian.
Herefordshire.—**0**, Gray, J. W. *See also* Malvern Hills.
Hérens, Val d' (Valais).—**2**, Wegmann, E.
Herford (Westphalia).—**1**, Mestwerdt, A., 2.
Hermitage Plains (N.S.W.). — **1**, White, H. P.
Herne (Westphalia).—**1**, Bærtling, R., 3.
Hertfordshire.—**0**, Barrow, G. ; Gilbert, C. J. ; Sherlock, R. L., 1, 2, 4 ; **1**, Whitaker, W., 2 ; Wooldridge, S. W. ; **2**, Barrow, G. ; Culpin, B. E. L. ; Sherlock, R. L., 3, 4 ; Williams, A. H. *See also* Chiltern Hills.
Herve (Liége).—**0**, Renier, A. ; **2**, Humblet, E.
Herzegovina (Yugoslavia).—**2**, Katzer, F., 2.
Herznach (Aargau).—**2**, Amsler, A., 2.
Hesbaye (Liége).—**0**, Liége.
Hesperopithecus.—**2**, Osborn, H. F., 6, 8 ; Pycraft, W. P. ; Woodward, A. S., 4.
Hesse (Germany).—**0**, Klemm, G., 7–9, 12 ; Schottler, W., 4 ; **1**, Blanckenhorn, M. ; Meyer, H. L. F., 5 ; Ramdohr, P. ; **2**, Meyer, H. L. F.
—— (——), basalt.—**1**, Eitel, W., 5 ; Pfisterer, H. ; Schauf, W. ; **2**, Apel, K. ; Berns, A. ; Ramdohr, P., 1, 2 ; Rose, H., 2 ; Schwantke, A.
—— (——), geology.—**0**, Klemm, G., 3, 11 ; Lepsius, R. ; Schottler, W., 5 ; **1**, Blanckenhorn, M., 2, 6 ; **2**, Neumann, R.
—— (——), ore-deposits. — **2**, Beyschlag, F., 7 ; Eitel, W., 3 ; Harrassowitz, H. L. F., 3 ; Hummel, K., 2 ; Krusch, P., 5.
—— (——), Palæozoic.—**0**, Steuer, A., 4, 6 ; **1**, Beetz, W. ; Dahmer, G., 4 ; **1**, Dienst, P. ; Muegge, O. ; **2**, Andrée, K., 3 ; Meyer, H. L. F., 2.
—— (——), Pleistocene.—**0**, Schottler, W., 3 ; **1**, Haupt, O. ; **2**, Weiler, W.
Hesse (Germany), stratigraphy.—**0** Schottler, W., 6 ; **1**, Blanckenhorn, M., 4, 5 ; Kaiser, E., 3, 4 ; **2**, Born, A., 3.
—— (——), Tertiary.—**0**, Schottler, W., 1, 2 ; Steuer, A., 8 ; **1**, Beetz, W. ; **2**, Haupt, O. ; Wenz, W., 5.
—— (——), Trias.—**1**, Dienemann, W. ; Kindermann, C. ; **2**, Meyer, H. L. F., 7.
—— (——), water.—**0**, Steuer, A., 1–3, 5, 7 ; **2**, Steuer, A., 2.
—— (——). *See also* Mainz basin.
Hesse-Nassau (Germany).—**0**, Drevermann, F. ; **1**, Blanckenhorn, M., 3 ; Lieber, H. ; Schlossmacher, K., 3 ; **2**, Ahlburg, J. ; Born, A., 6 ; Harrassowitz, H. L. F., 5.
—— - —— (——), stratigraphy. — **1**, Ahlburg, J., 2, 4 ; Drevermann, F., 2 ; Weiss, G. ; Wenz, W. ; **2**, Drevermann, F., 3.
Heterastridium.—**1**, Gerth, H.
Heteroglyphæa.—**1**, Colossi, G.
Heterostegina.—**1**, Cushman, J. A.
Hettangian, Burgundy.—**0**, Cayeux, L., 2.
——, Lombardy.—**1**, Mariani, E., 14.
Hettenleidelheim (Pfalz).—**2**, Matthiass, W.
Heuberg (Bavaria).—**2**, Broili, F., 6.
Heulandite.—**1**, Tietze, O., 6 ; **2**, Beutell, A., 5 ; Sigmund, A. ; Stoklossa, G.
Hewettite.—**1**, Hillebrand, W. F.
Hexacoralla.—**0**, Robinson, W. I.
Hexactinellida.—**0**, Clarke, J. M.
Hidalgo (Mexico).—**0**, Camacho, H. ; Wittich, E., 2 ; **1**, Wittich, E. ; **2**, Paredes, T. ; Winchell, H. V.
Hieroglyphic sandstones. *See* Sandstones.
Higginsite.—**0**, Palache, C., 5, 6.
Highland Border series, Forfar-Kincardine.—**0**, Campbell, R.
Highlands.—**0**, Bremner, A., 4 ; **1**, Bailey, E. B. ; **2**, Frœdin, G., 2.
—— (S.W.).—**2**, Bailey, E. B. ; Wright, W. B., 2.
Highwood R. area (Alberta).—**1**, Rose, B.
Hilden (Rheinland).—**1**, Quaas, A., 4 ; Zimmermann, E., II, 6, 7.
Hill End (Herts).—**2**, Williams, A. H.
Hill Moreton (War). — **2**, Richardson, L., 4.
Hills, Belgium-N.E. France. — **1**, Briquet, A., 2 ; Leriche, M., 4 ; Stamp, L. D., 2 ; Stevens, C. *See also* Buried hills.
Himalayas.—**0**, Bonnet, P., 1, 2 ; Burrard, S. ; Gregory, J. W., 2 ; **1**, Cowie, H. McC. ; **2**, Heron, A. M., 1–3.
Hippaliosina.—**1**, Canu, F.
Hipparion.—**1**, Ferronnière, G. ; **2**, Stock, C.
Hippophaës.—**0**, Œyen, P. A.

Hippopotamidæ.—**2**, Joleaud, L., 3.
Hippopotamus.—**2**, Airaghi, C. ; Reynolds, S. H., 2.
Hirnant beds, N. Wales.—**2**, Elles, G. L., 3.
Hirschgarten (Brandenburg). — **0**, Hucke, K.
Hitachi (Japan).—**1**, Watanabé, M.
Hitdorf (Rheinland).—**1**, Fliegel, G.
Hochalm (Carinthia).—**0**, Angerer, H., 3.
Hochkalter (Bavaria).—**0**, Schlagintweit, O.
Hochlantsch (Styria).—**1**, Heritsch, F., 2, 3.
Hochschwab Mts. (Styria).—**0**, Spengler, E., 4.
Hodna (Algeria).—**1**, Savornin, J.
Högbomite.—**0**, Schetelig, J., 2.
Hohe Tauern (Austria).—**0**, Angerer, H., 4 ; Dœhler, K., 2 ; Heritsch, F., 2 ; **1**, Sander, B., 2.
Hohe Venn (Belgium-Rheinland).—**1**, Kirchberger, M. ; Quaas, A., 5, 7.
Hohenbocka (Lausitz).—**0**, Keilhack, K., 9.
Hohenburg (Styria).—**1**, Kittl, E., 2.
Hohenkirchen (Hesse). — **2**, Beyschlag, F., 7.
Hohensalza. *See* Inowrazlaw.
Hohenzollern (Germany).—**1**, Mueller, H., 1, 2 ; Schmierer, T., 1–5.
Holderness (Yorks).—**0**, Lamplugh, G. W., 5 ; **1**, Petch, T. ; **2**, Midgley, C. ; Sheppard, T., 5.
Hole Beck (Yorks).—**0**, Butterfield, J. A.
Holectypoida.—**0**, Hawkins, H. L., 3.
Holland.—**0**, Krusch, P., 3 ; Suess, F. E. ; Versluys, J. ; **1**, Keilhack, K., 4 ; **2**, Simmersbach, B., 13 ; Van Baren, J.
——, boulders in Pleistocene.—**2**, Oostingh, C. H. ; Quaas, A. ; Wichmann, A.
——, glaciation. — **0**, Dubois, E. ; Keilhack, K., 4 ; **1**, Wunderlich, E. ; **2**, Penck, A., 2.
—— (E.), salt-deposits.—**2**, Engel, C. P.
—— (S.), Pleistocene.—**1**, Kurtz, E., 2.
——. *See also* Limburg *&* Overyssel.
Holly Hill (Kent).—**2**, Bromehead, C. E. N., 4.
Holm (Hanover).—**1**, Kœrt, W.
Holmia.—**2**, Kiær, J., 5.
Holocene, Somerset.—**1**, Greenly, E.
Holochoanites.—**0**, Grabau, A. W., 6.
Holocystites.—**0**, Fœrste, A. F., 8.
Holstein (Germany).—**0**, Richters, F. ; **1** & **2**, Wolff, W., 2.
—— (——), boulders.—**0**, Gagel, C., 5 ; **1**, Ernst, W. ; Gagel, C., 6 ; **2**, Reitz, H.
—— (——), Quaternary.—**0**, Gagel, C., 3 ; **1**, Schlunck, J., 2, 5 ; Wolff, W.
Holstein (Germany). *See also* Hamburg area, Schleswig-Holstein, *&c.*
Holzkohle. *See* Charcoal.
Holzmaden (Württemberg). — **1**, Hauff, B.
Homalonotus.—**0**, Reed, F. R. C., 3 ; **1**, Dahmer, G. ; **2**, Richter, R., 7.
Homarus.—**1**, Van Straelen, V.
Homberg (Hesse).—**1**, Blanckenhorn, M., 1, 2.
Homo. *See* Man.
Homogalax.—**2**, Troxell, E. L., 2.
Homomya.—**1**, Bender, G.
Homoptera.—**0** & **1**, Tillyard, R. J. ; **2**, Cockerell, T. D. A., 7.
Honduras.—**2**, Washington, H. S., 2, 10, 11.
Honfleur (Calvados).—**0**, Dollfus, G. F., 17.
Hope Valley (S. Austr.).—**1**, Ward, L. K., 5, 7.
Hopeite.—**0**, Buttgenbach, H., 2.
Hope's Nose (Devon).—**0**, Beynon, F.
Hoplisus.—**2**, Cockerell, T. D. A., 6.
Hoplites.—**1**, Franke, F., 2 ; Stolley, E.
Hoploparia.—**2**, Van Straelen, V., 3.
Hoplophoneus.—**2**, Sinclair, W. J.
Hopsten (Westphalia).—**1**, Tietze, O., 3.
Hordle (Hants).—**1**, Reid, C. ; **2**, Chandler, M. E. J., 3.
Horion (Liége).—**0**, Fourmarier, P., 10 ; **1**, Anten, J., 3; Fourmarier, P., 4.
Horn (Lr. Austria).—**0**, Hinterlechner, K., 3.
Hornblende.—**1**, Miller, W. J., 3 ; **2**, Bœke, H. E., 7 ; Murgoci, C., 12 ; Palmgren, J. ; Rinne, F., 12 ; Washington, H. S., 12.
—— -gabbro. *See* Gabbro.
—— -gneiss. *See* Gneiss.
—— -miassite. *See* Miassite.
—— -rock, Piedmont.—**2**, Bianchi, A.
—— - ——, Transylvania. — **2**, Mœckel, K.
Hornblendite, Japan.—**1**, Watanabé, M.
——, Quebec.—**0**, Stansfield, J.
Hornea.—**0**, Kidston, R. ; **1**, Lang, W. H.
Hornfels, E. Indies.—**2**, Brouwer, H. A., 4, 9 ; Romang, M.
——, Germany.—**0**, Klemm, G., 5, 6.
——, Norway.—**2**, Goldschmidt, V. M.
Horowhenua (N.Z.).—**0**, Adkin, G. L.
Horsts.—**1**, Brockmeier, H. ; **2**, Moscheles, J.
Hötting breccia, Tyrol.—**1**, Guerich, G., 3 ; Lepsius, R. ; Penck, A., 4.
Howqua R. area (Vict.).—**0**, Skeats, E. W., 10 ; Teale, E. O.
Hozémont (Liége).—**1**, Anten, J., 3 ; Fourmarier, P., 4.

Hřebeny Mts. (Bohemia).—**2**, Kettner, R., 5.
Huancavelica (Peru).—**2**, Berry, E. W., 20.
Huánuco (Peru).—**1**, Broggi, J. A.
Huatacondo (Chile).—**1**, Felsch, J.
Hübnerite.—**2**, Bravo, J. J., 2.
Hudson Bay area.—**0**, Savage, T. E., 2.
Hudson valley (N.Y.).—**0**, Berkey, C. P. ; Fairchild, H. L., 2 ; Stoller, J. H.
Huelva (Spain).—**1**, Collins, H. F. ; **2**, Burthe, P. L. ; Pilz, R.
Huenella.—**2**, Holtedahl, O., 5.
Huesca (Spain).—**1**, Mengel, O., 3.
Hüggel (Hanover).—**1**, Kuhlmann, L.
Hühnberg (Thuringia). — **2**, Utendœrfer, A.
Hull (Yorks).—**1**, Lamplugh, G. W., 2 ; **2**, British Association ; Crofts, W. H.
Humber basin.—**1** & **2**, Newton, C. B.
Humber R.—**1**, Sheppard, T., 6 ; **2**, Sheppard, T., 2, 3.
Humboldtilite.—**2**, Buddington, A. F.
Humphriesi-beds, Switzerland. — **1**, Leuthardt, F.
Humus.—**0**, Lang, R. ; **1**, Steel, T. ; **2**, Hœgbom, A. G. ; Holden, E. F., 3 ; Lang, R.
Hungary.—**0**, Horváth, B. v. ; Kormos, T. ; Lóczy, L. v., 1, 2 ; Székány, B. ; Szontagh, T. v., 3 ; **1**, Anon. ; Zalányi, B., 3 ; **2**, Hungary.
——, soils.—**0**, Ballenegger, R., 2 ; Horusitzky, H. ; Timkó, E., 2 ; Treitz, P.
—— (N.-Central).—**1**, Kormos, T., 7 ; Noszky, E., 3.
—— (W.).—**1**, Jugovics, L., 2.
——. *See also* Abauj-Torna, Balaton L. area, Borsod, *&c.*
Hunsrück (Rheinland).—**1**, Vogel, H. ; **2**, Zœller, A.
Hunter R. area (N.S.W.).—**1**, Sussmilch, C. A.
Huntingdonshire.—**2**,Whitaker,W., 2.
Huntley (Mont.).—**0**, Hancock, E. T., 2.
Huntley Quarry beds, Gloucestershire.—**1**, Gardiner, C. I.
Huntly (N.Z.).—**1**, Henderson, J., 4.
Hunua (N.Z.).—**2**, Bartrum, J. A., 3.
Hunyad (Transylvania).—**0**, Papp, K. v. ; **1**, Zalányi, B., 4 ; **2**, Vendl, A.
Hurlet coal-seam, Midlothian.—**0**, Conacher, H. R. J.
Huronian, Michigan.—**1**, Allen, R. C.
Huy (Prussia).—**1**, Schrœder, H., 7.
Hyæna.—**1**, Geib, K. ; **2**, Athanasiu, S. C., 4, 7.
Hyænodon.—**2**, Thorpe, M. R., 3.
Hyalite.—**1**, Clerici, E. ; **2**, Lingen, J. S. v. d.
Hybodus.—**1**, Schmidt, M., 5.
Hyderabad (India).—**1**, Munn, L.
Hydractinia.—**1**, Oppenheim, P., 2.
Hydrates.—**2**, Johnsen, A., 5.
Hydration, desmine.—**2**, Beutell, A., 6.
Hydrobia-beds, Hesse-Nassau. — **1**, Wenz, W.
Hydrocarbons.—**0**, Clarke, F. W.
——, Greece.—**0**, Ktènas, C. A.
Hydrocastorite.—**0**, Comucci, P.
Hydrocorallinæ.—**0** & **1**, Nielsen, K. B., 2.
Hydrogen sulphide, Iraq.—**1**, Pascoe, E. H., 2.
Hydrogeology. *See* Water.
Hydrography, Adriatic Sea. — **1**, Koch, F., 3.
——, former, Sahara.—**1**, Chudeau, R., 4.
Hydrology. *See* Water.
Hydrolysis, weathering &.—**2**, Ramann, E.
Hydromagnesite.—**1**, Reinecke, L. ; **2**, Grill, E.
Hydromagnocalcite.—**2**, Glatzel, E.
Hydromica.—**0**, Bayley, W. S.
Hydropelta.—**2**, Œrtel, W.
Hydrosilicates.—**2**, Beutell, A., 8.
Hydrotalcite.—**0**, Foshag, W. F., 6 ; **2**, Foshag, W. F.
Hydrothermal action, granite intrusions.—**2**, Hugi, E.
—— origin, ore-deposits.—**0**, Katô, T.
Hydrozincite.—**1**, Perrier, C.
Hydrozoa.—**0**, Price, W. A. ; **2**, Stechow, E. ; Yakovlev, N. N.
——, Cambrian.—**1**, Howchin, W., 3.
——, Cretaceous.—**1**, Nielson, K. B., 2.
——, Devonian.—**2**, Mansuy, H., 3, 10 ; Reed, F. R. C., 2.
——, Eocene.—**0**, Oppenheim, P. ; **1**, Oppenheim, P., 2.
——, Jurassic.—**0**, Berckheimer, F.
——, Ordovician.—**0**, Miller, A. M.
——, Palæozoic.—**0**, Chapman, F., 7 ; Holtedahl, O., 6.
——, Trias.—**1**, Diener, C., 5 ; Gerth, H. ; Vinassa de Regny, P.
——. *See also* Stromatoporoidea.
Hyères (Var).—**1**, Haug, E.
Hymenoptera. — **1**, Bischoff, H. ; Cockerell, T. D. A.
Hyolithidæ.—**0**, Rothpletz, A.
Hyopsodus.—**1**, Teilhard de Chardin, P., 3.
Hypabyssal injection. *See* Injection.
Hypersthene.—**1**, Zambonini, F.
—— -syenite. *See* Syenite.
Hypertragulidæ.—**2**, Lull, R. S., 2.
Hypisodus.—**0**, Troxell, E. L.
Hypoparia.—**2**, Ulrich, E. O.
Hyrachyus.—**2**, Troxell, E. L., 5.
Hyracodon.—**1**, Troxell, E. L., 4 ; **2**, Sinclair, W. J., 5.
Hyracoidea.—**2**, Brauer, A. ; Matsumoto, H.

I

Ianina (Greece).—**2**, Niculescu, C., 2.
Ice.—**0**, Brueckner, E., 4 ; Klebelsberg, R. v., 7 ; Howorth, H. H. ; Leffingwell, E. de K. ; Matsuyama, M.
——, Antarctica.—**1**, Drygalski, E. v. ; **2**, Wordie, J. M., 2.
——, crystals.—**1**, Ehringhaus, A. ; **2**, Gross, R., 2 ; Kalb, G., 7 ; Muegge, O., 11 ; Stecher, E. ; Wetzel, W.
——, glacier spring &. — **0**, Hardcastle, J.
——, lacustrine.—**0**, Hamberg, A.
——, melting of.—**0**, Bremner, A. ; **1**, Hermann, — ; **2**, Hausen, H. ; Lehmann, F. W. P. ; Woldstedt, P.
——, physiography &.—**2**, Baschin, O., 3.
——, recession of.—**0**, Wright, W. B., 4 ; **2**, Antevs, E., 3.
——, transportation by.—**0**, Debenham, F. ; Stark, J.
——. *See also* Glacière, *&c.*
Ice Age.—**0**, Howorth, H. H. ; **1**, Geinitz, E. ; Marriott, R. A., 2 ; Taramelli, T., 10 ; **2**, Barley, A. H.
—— ——, Ægean area.—**2**, Négris, P., 3.
—— ——, Alps.—**2**, Van Baren, J.
—— ——, Belgium.—**1**, Quaas, A., 5.
—— ——, British Isles.—**0**, Brooks, C. E. P.
—— ——, Carpathians (E.).—**0**, Pavlovski, S.
—— ——, Caucasus.—**0**, Reinhard, A. v.
—— ——, Durham.—**1**, Woolacott, D.
—— ——, Europe.—**0**, Brooks, C. E. P. ; Székány, B. ; **1**, Brooks, C. E. P.
—— ——, Fennoscandia.—**0**, Hansen, A. M.
—— ——, Finland (S.).—**0**, Sauramo, M.
—— ——, France. — **1**, Boisse de Black, Y., 2 ; Combaz, P.
—— ——, Geneva L. area.—**0**, Joukowsky, E.
—— ——, Germany.—**0**, Jækel, O., 2 ; Kurtz, — ; **1**, Harbort, E., 4 ; Keilhack, K., 5 ; Linstow, O. v., 5 ; Quaas, A., 5 ; Stoller, J., 5 ; Wieegrs [Wiegers], F. ; Wolff, W., 4 ; **2**, Penck, A., 3.
—— ——, Hungary.—**0**, Székány, B.
—— ——, Ireland (N.).—**1**, Dwerryhouse, A. R.
—— ——, Ladoga L. area.—**0**, Ailio, J.
—— ——, N. America.—**2**, Upham, W., 2.
—— ——, Northumberland. — **1**, Woolacott, D.
—— ——, Poland.—**1**, Assmann, P., 3 ; **2**, Samsonowicz, J.
Ice Age, Scandinavia. — **2**, Œyen, P. A., 3 ; Van Baren, J.
—— ——, Sweden.—**1**, Frœdin, J. ; Sandegren, R.
—— ——, Switzerland.—**2**, Dubois, A. ; Guillarmod, J. J.
—— ——, Trentino.—**0**, Stiny, J., 4.
—— ——, Tyrol.—**2**, Penck, A., 3.
—— ——, United States.—**0**, Alden, W. C. ; Fairchild, H. L., 2 ; **1**, Fenneman, N. M.
—— ——, changes of level &.—**2**, Penck, A., 2, 5 ; Zeil, G., 2.
—— ——, chronology.—**0**, Werth, E., 5 ; **1**, Geer, G. de ; **2**, Credner, W.
—— ——, climate.—**0**, Arldt, T., 3 ; Sacco, F., 35 ; **1**, Spitaler, R.
—— ——, coral-reefs &.—**0**, Daly, R. A., 3.
—— ——, dry valleys &.—**1**, Scheu, E.
—— ——, Indo-Australasian life &.—**2**, Weber, M.
—— ——, loess &.—**0**, Sœrgel, W., 5 ; **2**, Visher, S. S., 2.
—— ——, man &.—**2**, Anon., 31 ; Kendall, P. F., 3.
——. *See also* Glacial periods.
Ice-cap, Antarctica.—**0**, Mawson, D.
——, Pleistocene.—**1**, Daly, R. A.
——, retreat of, Cumberland. — **2**, Dixon, E. E. L.
Ice-caves, Salzburg. — **2**, Lehmann, O.
Ice-sheets.—**0**, Wright, W. B., 3.
——, Canada.—**0**, Coleman, A. P. ; **1**, Coleman, A. P. ; Johnston, W. A., 3.
——, United States (N.E.).—**2**, Cook, J. H.
Iceland.—**0**, Eiriksson, H. H., 1, 2 ; Hawkes, L.; Holmes, A., 10 ; Lacroix, A., 3 ; Thoroddsen, T. ; **1**, Bárdarson, G. G. ; Lamplugh, G. W., 2 ; **2**, Meyer, G.
Iceland spar, Iceland.—**0**, Eiriksson, H. H., 2.
Ichthyosauria.—**2**, Huene, F. v., 11 ; Wiman, C., 4.
——, Lias.—**1**, Hauff, B.
——, Trias.—**0**, Huene, F. v. ; **1**, Repossi, E., 2.
Ichthyosaurus.—**2**, Huene, F. v., 11.
Icolites.—**0**, Issel, A., 2.
Idaho (U.S.A.).—**0**, Mansfield, G. R., 2 ; Schultz, A. R. ; **1**, Mansfield, G. R. ; **2**, Davis, W. M., 3 ; Shannon, E. V., 8, 16.
—— (——), igneous rocks.—**0**, Shannon, E. V., 9 ; **1**, Mansfield, G. R., 3 ; **2**, Shannon, E. V., 2.
—— (——), mineral resources.—**0**, Condit, D. D., 3 ; Jones, E. L., *fil* ; Larsen, E. S., 2 ; United States, 4–6, 8 ; **1**, Mansfield, G. R., 2 ; Umpleby, J. B. ; **2**, United States, States, 8, 10.
—— (——), tectonics.—**0**, Mansfield, G. R., 3 ; **1**, Mansfield, G. R., 4.

Idaho (U.S.A.), Tertiary.—**0**, Mansfield, G. R. ; **1**, Buwalda, J. P. ; **2**, Chaney, R. W.
—— (——), water.—**0**, Grover, N. C., 1–4 ; Herron, W. H., 2 ; **1**, Davenport, R. W. ; Grover, N. C., 5 ; **2**, Baldwin, G. C.
Idar (Bombay Presidency).—**1**, Middlemiss, C. S.
Idjen (Java).—**0**, Hotz, W.
Idocrase.—**1**, Boeris, G., 3.
Ifton (Mon).—**1**, Dixon, E. E. L., 2.
Igneous centres.—**1**, Kemp, J. F., 3.
—— complex, Carnarvonshire. — **2**, Silvester, N. L.
—— ——, Transvaal.—**2**, Shand, S. J., 2.
Igneous rocks.—**0**, Cloos, H., 2 ; Whitney, W. B. ; **2**, Goldschmidt, V. M., 15 ; Johannsen, A.
—— ——, alkaline.—**2**, Evans, J.W., 3.
—— ——, analyses.—**0**, Washington, H. S. ; **2**, Richardson, W. A., 2.
—— ——, classification.—**0**, Holmes, A., 6 ; Johannsen, A. ; Mathews, E. B., 2 ; Washington, H. S., 2 ; **1**, Hackman, V. ; Pirsson, L. V. ; **2**, Niggli, P., 6.
—— ——, composition. — **0** & **2**, Clarke, F. W.
—— ——, crystallization.—**1**, Vogt, J. H. L., 3 ; **2**, Vogt, J. H. L.
—— ——, densities.—**0**, Iddings, J. P.
—— ——, druses.—**1**, Kœnigsberger, J., 2.
—— ——, formation.—**0**, Erdmannsdœrffer, O. H.
—— ——, intrusion.—**0**, Benson, W. N. ; **2**, Kemp, J. F., 3.
—— ——, life in.—**1**, Galippe, V.
—— ——, magnesian group. — **1**, Dixey, F., 2 ; Tilley, C. E., 3 ; **2**, Dixey, F., 3 ; Tilley, C. E., 3.
—— ——, metamorphism &. — **1**, Barrell, J.
—— ——, mineral resources &.—**0**, Roux-Brahic, J. ; **1**, Rastall, R. H., 2.
—— ——, minerals &. — **0**, Sederholm, J. J. ; **2**, Berg, G., 8.
—— ——, nomenclature. — **0**, Lacroix, A., 2.
—— ——, silica in.—**0**, Thomson, J. A., 4 ; **1**, Eyles, V. A.
—— ——, textures.—**0**, Wright, F. E., 2.
—— ——. *See also* Granite, Intrusions, Lavas, *&c.*
'Igneous sedimentation,' Mars &.—**0**, Guébhard, A. ; **1**, Guébhard, A., 4.
Igric (Bihar).—**1**, Kormos, T., 6.
Iguanodon.—**2**, Reis, O. M., 2.
Ijolite, Kola Penin.—**0** & **1**, Brenner, T.
——, Transvaal.—**2**, Shand, S. J.
Illasi (Venetia).—**0**, Fabiani, R.
Ille-et-Vilaine (France).—**0**, Dautzenberg, P., 2 ; Kerforne, F., 3 ; **1** Duplessix, E. ; Kerforne, F., 3 ; **2**, Collin, L., 3 ; Kerforne, F. J., 3.
—— (——), geology.—**0**, Kerforne, F., 4, 5, 7, 8 ; **1**, Kerforne, F., 5 ; Milon, Y.
—— (——), Tertiary.—**0**, Bézier, T. ; Dollfus, G. F., 19; **1**, Dollfus, G. F., 13 ; **2**, Dangeard, L., 2 ; Milon, Y.
Iller R. area (Bavaria).—**1**, Mueller, J.
Illinois (U.S.A.).—**0**, Cady, G. H. ; Hinds, H. ; Shaw, E. W., 5 ; **2**, Crook, A. R. ; Savage, T. E., 1, 2 ; Shaw, E. W.
—— (——), mineral resources.—**0**, United States, 5, 6, 8 ; **1**, Boericke, W. F. ; Cady, G. H. ; Ede, J. A. ; **2**, Cady, G. H. ; Parmelee, C. W.
—— (——), Palæozoic.—**0**, Savage, T. E. ; Weller, S. ; **2**, Dake, C. L.
—— (——), Pleistocene.—**1**, Leighton, M. M. ; **2**, Baker, F. C. ; Leighton, M. M.
—— (——), water.—**0**, Grover, N. C., 3–5 ; **1**, Grover, N. C., 2 ; **2**, Grover, N. C., 4.
ILLINOIS STATE MUSEUM.—**1**, Crook, A. R.
Ilm valley (Thuringia).—**1**, Michael, P.
Ilmenite.—**0**, Lacroix, A., 6 ; **1**, Bianchi, A., 4 ; **2**, Perrier, C. ; Watson, T. L.
Ilsemannite.—**2**, Cook, C. W. ; Dittler, E., 4.
Ilsenburg marl, Prussia.—**0**, Bœhm, J., 7.
Ilvaite. *See* Lievrite.
Imbros I. (Greece).—**2**, Kténas, A.
Immersion method, refraction.—**1**, Spangenberg, K., 2 ; **2**, Spangenberg, K., 1, 3.
Implements, bone & horn.—**0**, Rutot, A. ; **1**, Freudenberg, W.
——, ——, Argentina.—**1**, Ameghino, F., 7, 9, 11, 12 ; Frenguelli, J., 2.
——, ——, Devon.—**0**, Lowe, H. J.
——, ——, Glamorgan. — **0**, Sollas, W. J.
——, ——, Hebrides.—**0**, Bishop, A. H.
——, ——, Istria.—**2**, Battaglia, R.
——, ——, Yorkshire. — **0**, Armstrong, A. L.
——, bronze & iron, French Indo-China.—**2**, Mansuy, H., 6.
——, ——, Norway.—**0**, Brœgger, W. C. ; **2**, Petersen, J.
——, flint & stone.—**0**, Lankester, E. R., 2 ; Moir, J. R., 4 ; Rutot, A. ; **1**, Sheppard, T., 5 ; **2**, Howchin, W., 4.
——, ——, Antrim.—**0**, Lankester, E. R.
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——, earthquakes.—**1**, Cavasino, A., 2 ; Italy ; Labozzetta, R. ; Martinelli, G., 2–4 ; **2**, Oldham, R. D., 3.

——, mineral resources.—**0**, Anon., 34 ; Sacco, F., 17 ; **1**, Sampelayo, P. H. ; **2**, Buetz, G.

——, volcanism.—**0**, Sacco, F., 34 ; **1**, Lóczy, L. v.

——, water.—**0**, Sacco, F., 19, 26 ; **1**, Anon., 26.

—— (E.), magnetic observations.—**2**, Palazzo, L.

Italy (N.).—**1**, Henny, G. ; Taramelli, T., 5, 9, 11.

—— (——), tectonics.—**1**, Furlani, M. ; **2**, Termier, P., 4.

—— (N.W.).—**0**, Geisler, W.

—— (S.).—**1**, Grzybowski, J. ; **2**, Wepfer, E., 4.

——. *See also* Apennines, Basilicata, *&c.*

Itruvia.—**2**, Douvillé, H., 7.

Ituri R. area (Congo Belge).—**1**, Dorlodot, L. de, 4.

Iviza (Balearic Is.).—**1**, Fallot, P., 3.

Ivrea (Piedmont).—**0**, Sacco, F., 1, 15.

Ixtaccihuatl volc. (Mexico).—**2**, Paredes, T., 2.

J

Jabkowo (Poland).—**1**, Schlunck, J., 4.

Jablánc (Slovakia).—**1**, Lóczy, L. v., *fil*, 2.

Jackson formation, Georgia (U.S.A.), —**1**, Cooke, C. W., 2.

Jackson's Crossing (Vict.).—**2**, Kenny, J. P. L., 6.

Jade.—**2**, Washington, H. S., 7, 10, 11. *See also* Nephrite.

Jaen (Spain).—**1**, Andrimont, R. d'.

Jaluit I. (Marshall Is.).—**2**, Yabe, H., 3.

Jamaica.—**0**, Taber, S. ; **2**, Brunton, S. ; Thompson, B. ; Trechmann, C. T., 1, 2.

James Bay area (Canada).—**0**, Savage, T. E., 2.

Jamesonite.—**0**, Shannon, E. V., 14 ; **2**, Shannon, E. V., 7.

Jammu (Kashmir).—**0**, Middlemiss, C. S., 2.

Jämtland (Sweden).—**1**, Hœgbom, A. G. ; **2**, Frœdin, G.

Jan Mayen I. (Arctica).—**0**, Holmes, A., 10 ; **2**, Mercanton, P. L., 1, 2 ; Wordie, J. M., 4, 5.

Jänisjärvi, L. area (Finland).—**1**, Eskola, P., 2.

Janjukian, Victoria.—**2**, Chapman, F., 2.

Japan.—**0**, Diener, C., 2 ; Ōhashi, R. ; **1**, Watanabé, M. ; **2**, Ishi, K. ; Ogura, T., 1, 2 ; Yamasaki, N.

——, changes of level.—**0**, Omori, F., 2, 4.

——, coal.—**0**, Iwasaki, C. ; Horne, H. ; **2**, Schultze, E., 2.

——, earthquakes & volcanism.—**0**, Davison, C., 2 ; Omori, F., 1, 3 ; Tsuboi, S. ; **1**, Davison, C., 4, 6 ; **2**, Omori, F., 3, 4 ; Yasuda, C.

——, mineral resources.—**0**, Katô, T. ; Ōhashi, R., 2, 3 ; **2**, Japan ; Takahashi, J. ; Watanabé, M.

——, Tertiary.—**0**, Yokoyama, M. ; **2**, Yabe, H., 1, 4 ; Yokoyama, M.

——. *See also* Echigo *&* Kumamoto.

Jasper.—**2**, Liesegang, R. E.
——, W. Australia.—**0**, Feldtmann, F. R., 5 ; **1**, Feldtmann, F. R., 4, 5 ; Talbot, H. W. B.
Jasperoid, United States (Central).—**2**, Smith, W. S. T.
Jauer (Silesia).—**1**, Guerich, G., 2.
Jauernig (Silesia).—**0**, Gœtzinger, G.
Jaujac. *See* Coupe de Jaujac.
Java.—**0** & **1**, Van Es, L. J. C. ; **2**, Brouwer, H. A., 8 ; Lang, R.
——, mineral resources.—**1**, Kemmerling, G. L. L. ; Mannhardt, F. G. ; **2**, Hotz, W.
——, Tertiary.—**0**, Douvillé, H. ; Martin, K., 2 ; **1**, Vredenburg, E., 3 ; Ziegler, K. G. J. ; **2**, Martin, K.
——, volcanism.—**0**, Brun, A. ; Hotz, W. ; **2**, Kemmerling, G. L. L., 1–3.
Jellicoe (S. Austr.).—**1**, Jack, R. L.
Jemappes (Hainault).—**2**, Cornet, J., 5.
Jena (Thuringia).—**1**, Adolf, G. ; Kalkowsky, E., 2 ; **2**, Adolf, G.
Jericho (Tasmania).—**2**, Nye, P. B.
Jersey.—**0**, Andrews, C. W., 2 ; Lemprière, R. R. ; **1**, Boerlage, J. F. G. ; Plymen, G. H., 1–3 ; Teilhard de Chardin, P. ; **2**, British Association Committee, 7 ; Plymen, G. H. ; 'Red Rock.'
Jet, England.—**0**, Strahan, A., 4.
Joadja valley (N.S.W.).—**2**, Morrison, M., 10.
Joensuu (Finland).—**1**, Frosterus, B., 5.
Jogne R. (Fribourg). — **1**, Lugeon, J.
Johannesburg (Transvaal).—**2**, Mellor, E. T.
John Day formation, Oregon.—**1**, Thorpe, M. R.
John's River (N.S.W.).—**2**, Morrison, M., 5.
Johnstrupite.—**1**, Zambonini, F., 2.
Jointing.—**0**, Wright, F. E. ; **1**, Bucher, W. H. ; Hœfer, H. v. ; **2**, Stieler, C., 2.
Joly Mt. (Haute-Savoie).—**2**, Paréjas, E., 2.
Jordanite.—**2**, Gœtze, M. v.
Jorullo vol. (Mexico).—**1**, Waitz, P., 1–3.
Jotnian, Fennoscandia.—**2**, Geijer, P., 3.
Joyden's Wood (Kent).—**0**, Leach, A. L., 4.
Jubbulpore (Central Provinces). — **2**, Matley, C. A., 1, 2.
Judikarien. *See* Giudicaria.
Judith River formation, Montana.—**0**, Bowen, C. F., 3.
Juglans.—**0**, Depape, G.
Jujuy (Argentina).—**0**, Ducloux, E. H., 2.
Julian Alps. *See* Alps.
Jungfrau (Oberland).—**0**, Collet, L. W., 2, 3 ; **1**, Collet, L. W., 1, 2.
Jungingen (Hohenzollern).—**1**, Mueller, H. ; Schmierer, T., 5.
Junin (Peru).—**1**, Dueñas, E. I. ; **2**, Romero, C. L.
Jura.—**0**, Berckheimer, F.
——, Germany (S.W.).—**0**, Engel, T. ; Musper, F.
Jura (France).—**1**, Bourgeat, F. E., 1, 2 ; Piroutet, M., 1–3.
Jura Mts. (France-Switzerland).—**1**, Buxtorf, A., 2 ; Elber, R. ; Lehner, E. ; Schardt, H. ; **2**, Amsler, A. ; Fournier, E., 2.
Jurassic.—**2**, Davies, A. M. ; Salfeld, H.
——, Aargau.—**1**, Braun, L. ; **2**, Amsler, A., 2.
——, Africa (N.W.).—**0**, Abrard, R., 3, 4 ; Kilian, W. ; **1**, Blayac, J. ; Lôme, E. D. de ; Russo, P. ; Savornin, J. ; **2**, Ehrmann, F.
——, Albania.—**0**, Saxl, O.
——, Alps.—**1**, Pia, J., 2.
——, Alsace.—**0**, Grahmann, R. ; Leidhold, C. ; **1**, Grahmann, R. ; **2**, Leidhold, C. ; Schirardin, J.
——, Anatolia.—**2**, Vadász, E.
——, Ardèche.—**2**, Lissajous, M. ; Riche, A.
——, Argentina.—**2**, Behrendsen, O. ; Stehn, E. ; Steuer, A. ; Windhausen, A.
——, Austria.—**0**, Ampferer, O., 10 ; Spengler, E., 1, 3 ; Spitz, A., 9 ; **1**, Spitz, A. ; **2**, Furlani-Cornelius, M., 1, 2 ; Trauth, F.
——, Baden.—**1**, Abels, J. ; **2**, Wilser, J. L.
——, Basel.—**0**, Gutzwiller, A. ; **2**, Leuthardt, F., 1, 2.
——, Bavaria.—**2**, Abel, O., 3; Kranz, W., 6 ; Krumbeck, L., 5; Schnittman, F. X.
——, Belfort.—**2**, Charpiat, R.
——, Berne.—**1**, Buxtorf, A., 3, 4 ; Elber, R. ; Gerber, E., 5 ; Rabowski, F. ; **2**, Keller, W. T.
——, Bristol area.—**1**, Reynolds, S. H.
——, British Columbia.—**1**, Brock, R. W., 2 ; MacKenzie, J. D., 1, 2 ; Schofield, S. J., 2 ; **2**, Hanson, G.
——, Buckinghamshire.—**1**, Neaverson, E., 2 ; Whitaker, W., 2.
——, Burgundy.—**0**, Cayeux, L., 2.
——, Chile.—**2**, Stehn, E.
——, Cuba.—**0**, O'Connell, M., 3 ; Roig, M. S., 2.
——, Dorset.—**1** & **2**, Buckman, S. S., 3.
——, Doubs.—**1**, Buxtorf, A., 3 ; **2**, Charpiat, R.
——, Dutch E. Indies.—**0**, Abendanon, E. C. ; **2**, Brouwer, H. A., 11, 13 ; Jaworski, E., 3 ; Krumbeck, L., 6 ; Wanner, J., 3.
——, Egypt.—**1**, Douvillé, H., 3 ; Hume, W. F., 7 ; **2**, Moon, F. W.

Jurassic, England (E.).—**2**, Whitaker, W., 2.
——, Europe (Central).—**2**, Petrascheck, W., 3.
——, France.—**2**, Monestier, J.
——, French Indo-China.—**0**, Mansuy, H., 8 ; **2**, Mansuy, H., 1, 4, 8.
——, Fribourg.—**2**, Mauve, C. C.
——, Glarus.—**1**, Jeannet, A., 2.
——, Gloucestershire.—**0**, Richardson, L. ; **1**, Richardson, L., 4 ; Upton, C. ; **2**, Gray, J. W. ; Richardson, L., 1–3 ; Upton, C.
——, Graubünden.—**2**, Arbenz, P., 1, 2.
——, Greece.—**1**, Renz, C., 1, 2.
——, Haute-Savoie.—**2**, Paréjas, E.
——, Hohenzollern.—**1**, Mueller, H., 2 ; Schmierer, T., 4, 5.
——, Humber basin.—**1**, Newton, C. B.
——, Hungary.—**1**, Kulcsár, K. ; Vadász, M. E.
——, Isère.—**2**, Blanchet, F.
——, Italy.—**0**, Boden, K. ; Caffaratti, M. ; Schwinner, R., 3 ; **1**, Alessandri, G. de, 3, 4 ; Brunati, R. ; Bussandri, G. ; Chelussi, I., 4, 7 ; Fucini, A. ; Mariani, E., 14 ; Pia, J., 2 ; Pretto, O. de ; Principi, P. ; Repossi, E. ; Scalia, S. ; Stefani, C. de ; Winkler, A. ; **2**, Fabiani, R., 3, 5 ; Zenari, S.
——, Jura.—**1**, Bourgeat, F. E.
——, Languedoc.—**1**, Brun, P. de.
——, Lithuania.—**2**, Wetzel, W., 2.
——, Lorraine.—**0**, Langroyne, — ; **1**, Kluepfel, W. ; **2**, Bleicher, M. G.; Kluepfel, W. ; Thiéry, P., 1, 2.
——, Luxemburg (Duchy).—**0**, Joly, H. ; **2**, Joly, H., 5.
——, Maine-et-Loire. — **2**, Couffon, O.
——, Meuse.—**2**, Courty, G.
——, Mexico.—**1**, Burckhardt, C.
——, Midlands (S.).—**0**, Cox, A. H., 3 ; Lamplugh, G. W., 2.
——, New Zealand.—**1**, Trechmann, C. T.
——, Nièvre.—**1**, Grossouvre, A. de, 3.
——, Northamptonshire.—**1**, Richardson, L. ; Thompson, B., 2 ; **2**, Thompson, B., 2.
——, Oberland.—**1**, Collet, L. W., 2.
——, Orne.—**1**, Antoine, —.
——, Oxfordshire.—**1**, Richardson, L.
——, Pas-de-Calais.—**1**, Dollé, L.
——, Persia.—**1**, Tipper, G. H.
——, Peru.—**0**, Douglas, J. A.
——, Poland.—**0**, Jentzsch, A., 7.
——, Pomerania.—**1**, Schulte, L., 2 ; **2**, Keilhack, K.
——, Pre-Alps.—**2**, Horwitz, L.
——, Prussia.—**1**, Kuhlmann, L.
——, Queensland.—**0**, Dunstan, B.
——, St. Gallen.—**0**, Heim, Arnold.
——, Schwyz.—**2**, Heim, Albert, 3.
Jurassic, Scotland.—**0**, Lee, G. W. ; Macgregor, M., 1, 2.
——, Shan States.—**1**, Buckman, S. S.
——, Slovakia.—**1**, Ferenczi, S., 2 ; Kulcsár, K., 2, 3 ; Lóczy, L. v., *fil*, 2 ; Roth von Telegd, K., 2 ; Vigh, J., 2, 3.
——, Solothurn.—**2**, Keller, W. T.
——, Somerset.—**2**, Thompson, W.
——, Spain.—**0**, Gomez-Llucea, F. ; Kilian, W., 6 ; Palacios, P. ; **2**, Schlosser, M.
——, Swabia.—**1**, Kessler, P.
——, Sweden.—**0**, Munthe, H.
——, Switzerland.—**0**, Christ, P. ; Lugeon, M. ; Muehlberg, F. ; Staub, R., 2 ; **1**, Lehner, E. ; Staub, R., 8.
——, Tanganyika.—**0**, Hennig, E., 3 ; **2**, Reck, H., 2.
——, Tessin. — **0**, Preiswerk, H. ; Renz, C.
——, Transylvania.—**0**, Muecke, K. v. ; **1**, Jekelius, E., 1–3 ; Papp, K. v., 4 ; Vadász, M. E., 2 ; Wachner, H.
——, United States (W.).—**0**, Lee, W. T., 2 ; Mansfield, G. R., 2 ; **1**, Osborn, H. F., 6 ; Packard, E. L., 3.
——, Valais.—**1**, Swiderski, B. ; **2**, Paréjas, E.
——, Vaud.—**0**, Jeannet, A. ; **2**, Nolthenius, A. B. T.
——, Weald.—**0**, Lamplugh, G. W., 2.
——, Westphalia.—**1**, Haack, W., 3.
——, Wiltshire.—**1**, Bradley, A. G. ; **2**, Gore, C. H. ; Pringle, J. ; Richardson, L., 5.
——, Württemberg.—**0**, Lœffler, K. ; **1**, Musper, F. ; Schmierer, T., 4 ; **2**, Fischer, H. ; Klæhn, H.
——, Yorkshire.—**0**, Lamplugh, G. W., 2 ; Sewell, J. T., 2 ; **2**, Bisat, W. S.
——, Yugoslavia.—**1**, Hærtel, F. ; Kerner, F. v. ; Koch, F., 1, 2 ; Kormos, T. ; Poljak, J.
—— boulder, Caithness.— **0**, Lee, G. W., 3 ; Sutherland, A.
—— building-stones.— **1**, Elsden, J. V.
——, chronology of.—**0**, Buckman, S. S., 2 ; **2**, Buckman, S. S., 1, 3.
——, coal.—**1**, Stevenson, J. J.
——, ferriferous, Great Britain.—**0**, Hatch, F. H. ; **1**, Lamplugh, G. W., 5 ; **2**, Great Britain, 20.
——. *See also* Kimeridgian, Lias, *&c.*
Jurupaite.—**1**, Eakle, A. S.
Jutland (Denmark).—**1**, Jessen, A. ; Milthers, V., 3–6 ; **2**, Madsen, V. ; Nordmann, V., 2 ; Reusch, H., 6.
Juvenile water. *See* Water.

K

Kaapsche Hoop (Transvaal). — **2**, Hall, A. L., 3, 4.
Kabylie des Babors (Algeria).—**1**, Ehrmann, F., 1–3.
Kaffirskraal (Transvaal).—**2**, Fergusson, M.
Kagoshima Bay (Japan).—**0**, Omori, F., 2.
Kahiltna valley (Alaska).—**0**, Mertie, J. B., *fil*, 5.
Kahleberg sandstone, Harz.—**1**, Dahmer, G., 3.
Kainitite. *See* Hartsalzkainitite.
Kaipara (N.Z.).—**1**, Marshall, P.
Kaisergebirge (Tyrol).—**2**, Ampferer, O., 6.
Kaiserstuhl (Baden).—**2**, Meigen, W., 2 ; Sœllner, J., 1–4.
Kaiserwald (Bohemia).—**0**, Moscheles, J., 2.
Kaitum R. area (Sweden).—**2**, Hœgbom, A. G., 2.
Kakukberg (Transylvania).—**1**, Zimányi, K.
Kalahari Desert (S. Afr.).—**0** & **2**, Schwarz, E. H. L.
Kalevian, Finland.—**1**, Frosterus, B., 3 ; Wilkman, W. W.
Kalgoorlie (W. Austr.).—**0**, Harris, C. M.
Kaliophyllite.—**0**, Cesàro, G.
Kames, Yorkshire.—**2**, Phemister, J.
Kamloops (B.C.).—**0**, Ferrier, W. F., 3.
Kandern (Baden).—**2**, Wilser, J. L.
Kangaroo I. (S. Austr.).—**0**, Tilley, C. E., 1, 2 ; **1**, Ward, L. K., 3 ; **2**, Tilley, C. E. ; Ward, L. K.
Kansan drift, Pennsylvania.—**0**, Williams, E. H., *fil*.
—— till, Iowa.—**2**, Kay, G. F., 3.
Kansas (U.S.A.).—**0**, Hinds, H., 3 ; Twenhofel, W. H. ; United States, 5, 6, 8 ; **1**, Darton, N. H. ; **2**, Berry, E. W., 17 ; Moore, R. C. ; Smith, W. S. T.
—— (——), petroleum. — **0**, Bosworth, T. O. ; **2**, Monnett, V. E. ; Moore, R. C., 3.
—— (——), water.—**1**, Grover, N. C., 3 ; **2**, Grover, N. C., 5, 6.
Kansas City (Mo.).—**0**, Merrill, G. P., 4.
Kansu (China).—**2**, Omori, F., 2.
Kantia.—**1**, Baretti, A.
Kantishna (Alaska).—**0**, Capps, S. R., 3, 4.
Kaolin.—**0**, Finckh, L. ; **2**, Šplíchal, J.
——, Algeria.—**2**, Granger, A.
——, Cornwall-Devon.—**0**, Collins, H. F.
——, Federated Malay States.—**0**, Jones, W. R.
——, Piedmont.—**1**, Repossi, E., 10.
——, Quebec.—**1**, Keele, J., 3.
——, Silesia.—**1**, Muehlen, L. v. z., 2.
Kaolin, S. Africa.—**1**, Anon., 7.
——, United States.—**0**, Bayley, W. S. ; Easton, H. D. ; **1**, Bucher, W. H., 2.
——, W. Australia.—**0**, Feldtmann, F. R., 2.
——. *See also* China-clay.
Kaolinization, Dobrogea.—**2**, Cantuniari, S., 4.
Karadja Dagh (Kurdistan). — **0**, Bruckmoser, J. H.
Karakorum Mts. (Kashmir).—**0**, Gortani, M., 2.
Karamoja (Uganda).—**1**, Wayland, E. J., 7.
Karangahake (N.Z.).—**2**, Henderson, J.
Karawanken Mts. (Austria-Yugoslavia).—**0**, Spitz, A., 7 ; **1**, Canaval, R.
Kare. *See* Cirques.
Karelia (Russian).—**1**, Homén, T.
Karislojo (Finland).—**1**, Aarnio, B.
Karlsbrunn (Czechosl. Silesia).—**2**, Kretschmer, F., 3.
Karlshagen (Pomerania).—**1**, Linstow, O. v., 8.
Karnitz (Pomerania).—**1**, Schulte, L.
Karroo system, Portuguese E. Africa. —**2**, Anthoine, R., 6.
—— ——, S. Africa.—**0**, Du Toit, A. L., 2 ; Steart, F. A. ; **1**, Du Toit, A. L., 2, 5 ; Rogers, A. W., 2 ; Steart, F. A.
—— ——, S. Rhodesia.—**0**, Molyneux, A. J. C., 2 ; **1**, Macgregor, A. M. ; Molyneux, A. J. C.
—— ——, Tanganyika.—**2**, Seward, A. C.
Karsts.—**0**, Nopcsa, F., 9 ; Savini, P.
——, Abruzzi.—**1**, Chelussi, I., 2.
——, S.-W. Africa.—**2**, Schneiderhœhn, H.
——, Yugoslavia (W.).—**0**, Waagen, L. ; **2**, Wray, D. A.
Karthala (Comoro Is.).—**0**, Lacroix, A., 4.
Karwin (Czechosl. Silesia).—**2**, Petrascheck, W.
Kasaï (Congo Belge).—**1**, Dorlodot, L. de, 3.
Kashmir. — **0**, Gortani, M., 2 ; Middlemiss, C. S., 2 ; Wadia, D. N., 2.
Kasolite.—**2**, Schœp, A.
Katanga (Congo Belge).—**0**, Fourmarier, P., 7 ; **1**, Delhaye, F. ; Grosse, E. ; Wagner, P. A. ; **2**, Guillemain, C. ; Lohest, M., 2 ; Trefois, G.
—— (——), minerals.—**2**, Buttgenbach, H., 3 ; Cesàro, G., 2, 3 ; Schœp, A., 2–4, 9, 10.
Katla (Iceland).—**0**, Lacroix, A., 3.
Katmai (Alaska).—**0**, Fenner, C. N. ; Shipley, J. W. ; **2**, Fenner, C. N., 2.
Kattowitz (Silesia). — **1**, Quitzow, W.

Katzbach Mts. (Silesia).—**1**, Zimmermann, E., I, 6.
Katzenbuckel (Baden).—**2**, Freudenberg, W., 2.
Kauai (Hawaii).—**2**, Hinds, N. E. A.
Kauffung (Silesia).—**1**, Zimmermann, E., I, 4.
Kawa Creek (N.Z.).—**0**, Bartrum, J. A., 3.
Kawhia (N.Z.).—**2**, Henderson, J., 5.
Kayserite.—**2**, Walther, K., 3.
Kazan (Russia).—**1**, Mohr, H., 2.
Kebnekaise (Sweden).—**0**, Quensel, P. ; Sundius, N., 2.
Kelantan (Malaya).—**1**, Low, V. F. S.
Kelham (Notts).—**0**, Ford, J.
Kellerwald (Hesse).—**1**, Dienst, P. ; **2**, Hummel, K., 2.
Keloet vol. (Java).—**2**, Kemmerling, G. L. L.
Kelyphite.—**0**, Sederholm, J. J.
Kemmel Mt. (W. Flanders). — **1**, Stamp, L. D., 2.
Kempen (Rheinland).—**1**, Pietzcker, —.
Kenadsa (Algeria).—**2**, Dussert, D.
Kenai Penin. (Alaska).—**1**, Gill, A. C.
Kendrick shale, Kentucky.—**1**, Jillson, W. R., 7.
Kennecott (Alaska).—**0**, Bateman, A. M., 2 ; **1**, Murray-Hughes, R.
Keno Hill (Yukon).—**1**, Cockfield, W. E., 2.
Kenogami L. area (Ont.).—**2**, Cooke, H. C.
Kent.—**0**, Rutot, A. ; **1**, Hutchinson, G. E. ; **2**, Brown, E. E. S. ; Brown, E. O. F.
——, coalfield.—**0**, Ackermann, A. S. E. ; Ritchie, A. E. ; **1**, Pruvost, P. ; **2**, Simmersbach, B., 9.
——, Cretaceous.—**0**, Herries, R. S. ; **2**, Bromehead, C. E. N., 4 ; Dibley, G. E. ; Leach, A. L.
——, Eocene.—**0**, Leach, A. L., 2–4 ; Priest, S. ; Stamp, L. D., 2, 3 ; **1**, Priest, S. ; **2**, Bromehead, C. E. N., 3.
Kent Co. (Ont.).—**1**, Williams, M. Y., 1, 2.
Kentrosaurus.—**0** & **2**, Nopcsa, F., 4.
Kentrurosaurus.—**2**, Hennig, E., 3.
Kent's Cavern (Devon).—**0** & **1**, Lowe, H. J.
Kentucky (U.S.A.).—**0**, Nettelroth, H. ; Norwood, C. J. ; **1**, Fenneman, N. M. ; Miller, A. M. ; **2**, Jillson, W. R., 6.
—— (——), bibliography.—**2**, Jillson, W. R., 8.
—— (——), Carboniferous.—**0**, Butts, C., 2 ; Crump, M. H. ; Glenn, L. C., 1, 2 ; Morse, W. C. ; Ulrich, E. O. ; **1**, Jillson, W. R., 7, 24 ; **2**, Weller, S.
—— (——), coal.—**0**, Browning, I. B. ; Crandall, A. R., 2, 3 ; Crider, A. F., 1, 3 ; Fohs, F. J., 3 ; Hodge, J. M., 1–8 ; Hoeing, J. B., 4 ; Hutchinson, F. M., 1, 3 ; Jillson, W. R., 3, 4 ; Quickel, R. D. ; Russell, P. G. ; **1**, Jillson, W. R., 1, 11, 12 ; **2**, Jillson, W. R., 1, 9, 11.
—— (——), geological survey.—**0**, Procter, J. R., 1, 2 ; Shaler, N. S., 1–3.
—— (——), geology & mineral resources.—**0**, Butts, C., 4 ; Crandall, A. R. ; Jillson, W. R., 2 ; Miller, A. M., 2, 3 ; Rhodes, E. O. ; Shaw, E. W., 4.
—— (——), meteorites.—**0**, Merrill, G. P., 5, 9 ; Miller, A. M., 4 ; **2**, Merrill, G. P., 2, 3.
—— (——), mineral production.—**2**, Jillson, W. R., 5.
—— (——), mineral resources.—**0**, Crider, A. F., 2 ; Crump, M. H., 2 ; Easton, H. D. ; Fœrste, A. F., 5 ; Fohs, F. J., 1, 2, 4 ; Gardner, J. H. ; Hoeing, J. B., 2 ; Phalen, W. C. ; **1**, Jillson, W. R., 17, 18, 22 ; Richardson, C. H.
—— (——), Ordovician.—**0**, Fœrste, A. F., 3, 4 ; Miller, A. M.
—— (——), ore-deposits.—**0**, Caldwell, W. B. ; United States, 5, 6, 8.
—— (——), Palæozoic.—**0**, Butts, C.; Jillson, W. R., 6 ; **2**, Jillson, W. R., 7.
—— (——), petroleum & gas.—**0**, Fœrste, A. F. ; Hoeing, J. B. ; Hutchinson, F. M., 2 ; Jillson, W. R., 1, 5, 7 ; Munn, M. J. ; Shaw, E. W. ; **1**, Jillson, W. R., 2–6, 9, 10, 13–16, 19, 21, 23, 25, 26 ; **2**, Glenn, L. C. ; Jillson, W. R., 2, 3, 10 ; St. Clair, S., 1, 2 ; Weller, S., 2.
—— (——), soils.—**0**, Jones, S. C., 1–8.
—— (——), water.—**0**, Fœrste, A. F., 2 ; Grover, N. C., 4 ; Hoeing, J. B., 3 ; **1**, Grover, N. C., 2 ; Jillson, W. R., 8, 27 ; **2**, Jillson, W. R., 4.
Kenya Colony.—**0**, Hobley, C. W. ; Parkinson, J., 2 ; **2**, Dietrich, W. O., 3 ; Gregory, J. W. ; Parkinson, J., 2 ; Walther, P.
Kenyte, Kenya.—**2**, Gregory, J. W.
Keratophyre, Alsace.—**0**, Buecking, H.
——, Pembrokeshire.—**2**, Part, G. M.
——, Silesia.—**1**, Zimmermann, E., I, 2.
——, nomenclature.—**2**, Wells, A. K.
——, quartz-, Styria.—**0**, Angel, F.
——, —— -, Sumatra.—**2**, Brouwer, H. A., 6.
Kerch Penin. (Crimea).—**2**, Sedeltschikov, W.
Kernsdorfer Höhe (E. Prussia).—**0**, Jentzsch, A., 8.
Kerogen shales, Japan.—**2**, Takahashi, J.
Kerry.—**0**, Callagan, H. R. ; Wright, W. B., 4.

Kersantite, Germany.—**1**, Beger, P. J.; **2**, Stauffacher, J., 2.
——, Guernsey.—**1**, Boerlage, J. F. G.
Kettle-holes, Aberdeen area. — **0**, Bremner, A.
Keuper, Belgium.—**1**, Goetz, C.
——, Germany.—**0**, Lang, R., 2; Pfeiffer, W.; Stettner, G.; **1**, Grupe, O., 5; Jentzsch, A., 6; Kindermann, C.; Naumann, E., 3, 6; Schrœder, H., 4, 6; Stettner, G.; **2**, Meyer, H. L. F., 7; Pfeiffer, W.; Schalch, F., 3; Silber, E.; Weigelin, M.
——, Luxemburg (Duchy). — **1**, Gœtz, C.
——, Poland.—**0** & **1**, Jentzsch, A., 6.
——, Rhine Valley.—**0**, Werveke, L. v., 16.
——, Switzerland (N.).—**2**, Schalch, F., 3.
——. *See also* Gipskeuper.
Keweenawan, L. Superior area.—**2**, Geijer, P., 3.
Kiagwe (Uganda).—**1**, Wayland, E. J., 6.
Kiandra (N.S.W.).—**0**, Harper, L. F., 8.
Kiangsu (China).—**0**, Chatley, H.; **2**, Chatley, H., 1, 2.
Kiaochow (Shantung).—**1**, Horn, —.
Kiel (Holstein).—**1**, Gagel, C., 6.
Kiel Canal (Schleswig-Holstein).—**1**, Gagel, C., 4.
Kielce (Poland).—**0**, Petrascheck, W., 7; **1**, Teisseyre, W., 2; **2**, Czarnocki, J.
Kieselgur. *See* Diatomaceous earth.
Kieseloolith. *See* Oolite.
Kieserite.—**2**, Grandinger, H.; Rinne, F., 5.
Kilauea (Hawaii).—**0**, Shepherd, E. S.; **1**, Cross, W.
Kilimanjaro, Mt. (Tanganyika).—**2**, Washington, H. S., 12.
Killer Kopf (Eifel).—**1**, Haardt, W.
Kilnsea (Yorks).—**0**, Lamplugh, G. W., 5.
Kimberley (Cape Prov.).—**2**, Parry, J.
Kimberley (W. Austr.).—**2**, Blatchford, T.
Kimberlite, Congo Belge.—**1**, Grosse, E.; Wagner, P. A.
——, S. Africa.—**2**, Harger, H. S.; Rogers, A. W., 2; Schwarz, E. H. L., 2
Kimeridgian, England.—**0**, Strahan, A., 4.
——, Wiltshire.—**2**, Chatwin, C. P.
Kincardineshire(Scotland).—**0**, Bremner, A., 2; Campbell, R.
Kings Mountain area (U.S.A.).—**0**, Keith, A.
King's Weston (Bristol area).—**0**, Reynolds, S. H.
Kingston Hill (Surrey).—**1**, Turner, E. A.
Kingwilliamstown (Cape Prov.).—**0**, Caink, T. G.
Kinkell Ness (Fife).—**0**, Balsillie, D., 3.
Kinkempois (Liége).—**0**, Fourmarier, P., 3.
Kinross-shire. — **0**, Duncan, J.; Rhodes, J. E. W.
Kinta (F.M.S.).—**1**, Scrivenor, J. B., 4; **2**, Romang, M.
Kirchohsen (Hanover).—**1**, Grupe, O., 1, 3.
Kirkcudbrightshire. *See* Galloway.
Kirkland L. area (Ont.).—**1**, Burrows, A. G., 2; Cooke, H. C.
Kirmington (Lincs).—**2**, Sheppard, T., 10.
Kirmonniemi (Finland).—**0**, Laitakari, A.
Kitzault valley (B.C.).—**2**, Hanson, G.
Kivu (Congo Belge).—**2**, Sharpe, A.
Kivu, L. area (Congo Belge).—**0**, Passau, G., 2.
Kjerulfia.—**2**, Kiær, J., 5.
'Klebsand,' Pfalz.—**2**, Matthiass, W.
Klein-Leipisch (Prussia).—**2**, Hess von Wichdorff, H.
Klemmen (Pomerania).—**2**, Keilhack, K.
Klinge (Thuringia).—**1**, Bœhne, E., 2.
Klippes, Europe (Central).—**0**, Petrascheck, W.
——, France.—**0**, Termier, P., 6; **1**, Termier, P., 4.
——, Romania.—**2**, Mrazec, L., 11.
——, Slovakia.—**1**, Lóczy, L. v., 3.
——, Spain (N.E.).—**2**, Joly, H., 2.
——, Switzerland.—**0**, Girardin, P., 3; Lugeon, M., 3; **2**, Heim, Albert, 3.
Knik (Alaska).—**0**, Capps, S. R.
Knockholt (Kent).—**0**, Herries, R. S.
Knocklayd (Antrim).—**2**, Cole, G. A. J., 6.
'Knollensteine.'—**0**, Petrascheck, W., 4, 5.
Knüllgebirge (Hesse).—**1**, Blanckenhorn, M., 4, 6.
Koetei (Dutch Borneo).—**2**, Jezler, H.
Kohat (N.W. F. Prov.).—**0**, Stuart, M.; **1**, Stuart, M., 4.
Kokeby, Mt., area (W. Austr.).—**0**, Feldtmann, F. R., 2.
Koki (Uganda).—**1**, Simmons, W. C.
Kola Penin. (Russia).—**0**, Brenner, T.; **1**, Brenner, T.; Homén, T.; Ramsay, W.
Kolar (Mysore).—**0**, Moore, E. S.
Kollolith, refractive indices &.—**2**, Lehmann, E.
Komárom (Hungary).—**0**, Horusitzky, H.; **1**, Horusitzky, H., 3.
Kongsberg (Norway).—**0** & **1**, Bugge, C.
Königsberg (E. Prussia).—**1**, Kaunhowen, F., 2; Meyer, E., 6.

Königstein (Nassau).—**1**, Leppla, A., 2, 3, 6.
Königstuhl (Carinthia).—**2**, Holdhaus, K., 1, 2.
Königswinter (Rheinland).—**1**, Waterkamp, M. ; **2**, Busz, K., 2.
Koppite-limestone. *See* Limestones.
Koralpe (Styria).—**2**, Heritsch, F., 7.
Kordeshagen (Pomerania).—**1**, Menzel, H.
Kosaka (Japan).—**0**, Ōhashi, R., 2.
Kösen (Prussia).—**2**, Henkel, L.
Kotelny I. (Siberia).—**0**, Diener, C., 4.
Köthen (Anhalt).—**1**, Menzel, H., 4.
Kottbus (Brandenburg).—**1**, Clausnitzer, —, 2.
Krain. *See* Carniola.
Krakow (Poland).—**0**, Gœtzinger, G., 2 ; Petrascheck, W., 8 ; **1**, Bukowski, G. ; Doliński, J. ; Gœtel, W. ; Hœfer, H. v., 2 ; Małkowski, S. ; Morozewicz, I., 5 ; Smolenski, J. ; Teisseyre, W., 2. *See also* Tatra Mts.
Kramenzelkalk.—**1**, Schindewolf, O. H. ; **2**, Born, A., 5.
Krassószörény (Romania).—**1**, Schafarzik, F. ; **2**, Loisel, P., 3 ; Vendl, A.
Krems (Lr. Austria).—**0**, Hinterlechner, K., 3 ; Wiegers, F.
Kreuzbergite.—**1**, Wherry, E. T., 7.
Kreuznach (Mainz Basin).—**0**, Geib, K.
Kritosaurus.—**0**, Parks, W. A.
Krödsherred (Norway).—**2**, Andersen, O., 2.
Krol beds, Punjab.—**0**, Vredenburg, E. W., 8.
Krölpa (Thuringia).—**1**, Stoller, J., 7.
Kuckers stage, Esthonia.—**1**, Bekker, H.
Kuckersite.—**1**, Bekker, H. ; Lindenbein, H. A. R., 1, 2 ; **2**, Beyschlag, F., 11 ; Craig, E. H. C. ; Zalessky, M. D.
Kuils R. area (Cape Prov.).—**2**, Krige, A. V.
Kumamoto (Japan).—**2**, Ihara, K., 1, 3.
Kumatology.—**2**, Baschin, O., 1, 5.
Kundelungu system, Congo Belge.—**1**, Delhaye, F.
Kunene R. (Angola).—**1**, Kanthack, F. E.
Kunitz (Silesia).—**1**, Tietze, O., 9.
Kupferberg (Silesia).—**1**, Berg, G.
Kupferschiefer.—**1**, Beyschlag, F., 3 ; Pompeckj, J. F. ; **2**, Berg, G., 7.
——, Germany.—**1**, Beyschlag, F., 4 ; **2**, Krusch, P., 5 ; Lang, R., 6 ; Schneiderhœhn, H., 2.
Kurdistan (Asia Minor).—**0**, Bruckmoser, J. H. ; **2**, Pilz, R., 2.
Kurische Nehrung (E. Prussia).—**1**, Tornquist, A.
Kurokō deposits, Japan.—**0**, Ōhashi, R., 2.
Kürten (Rheinland).—**1**, Fliegel, G., 2.
Kuskokwim R. area (Alaska).—**0**, Smith, P. S.
Kuusamo (Finland).—**0**, Hænninen, K.
Kwango (Congo Belge).—**0**, Asselberghs, E., 2 ; **1**, Passau, G.
Kwangtung (China).—**0**, Wilckens, O., 7 ; **2**, Hubbard, G. D., 2.
Kwidzyn (Poland).—**2**, Limanovski, M. ; Sonntag, P., 2.
Kyneton (Vict.).—**2**, Keble, R. A., 2.
Kyre (Worcs).—**2**, La Touche, J.

L

La Chapelle-Heulin (Loire-Inférieure)—**2**, Ganichaud, B.
La Cotte de St. Brelade (Jersey).—**2**, British Association Committee, 7.
La Flèche (Sarthe).—**0**, Bigot, A.
La Garde (Basses-Alpes).—**0**, Guébhard, A., 2.
La Hague (Manche).—**2**, Azam, A., 2.
La Plata basin (S. America).—**1**, Ameghino, F., 7, 10, 14.
La Plata museum (Argentina).—**1**, Kantor, M.
La Plata R. (S. America).—**1**, Cardoso, A.
La Voulte-sur-Rhône (Ardèche).—**2**, Lissajous, M.
Laacher See area (Rheinland).—**1**, Brauns, R., 3, 4 ; Edel, G., 1, 2 ; Halfmann, G. J. ; Halfmann, H. ; Schuster, E. ; **2**, Brauns, R., 1, 2, 8, 13, 14.
Labes (Pomerania).—**1**, Hess von Wichdorff, H., 2.
Lablachen (E. Prussia).—**1**, Kaunhowen, F., 4, 5.
Labourd (Basses-Pyrénées).—**1**, Bertrand, L., 2.
Labrador.—**0**, Coleman, A. P. ; **1**, Coleman, A. P., 1, 3 ; Daly, R. A., 2.
Labrador-porphyry. *See* Porphyry.
Labradorite, Norway. — **2**, Goldschmidt, V. M., 6.
Labrodon.—**0**, Sacco, F., 7.
Labrus.—**1**, Brunati, R., 2.
Labyrinthodontia.—**0**, Seidlitz, W. v.
Lacapelle-Barrez (Cantal).—**1**, Boisse de Black, Y., 2 ; **2**, Boisse de Black, Y.
Laccoliths, Dobrogea.—**2**, Rotman, D., 2.
——, Linlithgowshire.—**0**, Cadell, H. M., 3.
——, Montana.—**0**, Kemp, J. F., 5 ; **2**, Kemp, J. F., 7.
——, Portugal.—**2**, Kaiser, E.
Lacedonia (Campania).—**1**, Chelussi, I.
Lacerta.—**1**, Frejérvary, G. J. de.
Lacertilia.—**1**, Stefano, G. de.
Lachine (Queb.).—**2**, Keele, J., 2.

Lacustrine deposits, New York.—**0**, Chadwick, G. H.
—— ——, S. Victoria Land.—**2**, Debenham, F.
Lading (Carinthia).—**2**, Leitmeier, H., 2.
Ladoga, L. (Finland-Russia).—**0**, Ailio, J.
Ladue R. area (Yukon).—**1**, Cockfield, W. E.
Lagoons, Victoria.—**2**, Hart, T. S.
Lähn (Silesia).—**1**, Kuehn, B.
Lahn valley (Hesse-Nassau).—**1**, Ahlburg, J., 2 ; Lauterbach, W. ; **2**, Ahlburg, J.
Lake Basin (Mont.).—**0**, Hancock, E. T.
Lake District.—**0**, Bain, A. D. N. ; Green, J. F. N. ; **1**, Eastwood, T. ; Green, J. F. N. ; Pearsall, W. H. ; **2**, Eastwood, T.
Lake Placid (N.Y.).—**0**, Miller, W. J.
Lake Superior area.—**1**, Davis, E. W.; **2**, Geijer, P., 3.
Lakes.—**0**, Clarke, F. W. ; Hamberg, A. ; **1**, Anon., 26 ; **2**, Hœgbom, A. G.
——, Africa (E. Central).—**0**, Fourmarier, P., 8.
——, Alps.—**0**, Joukowsky, E. ; **1**, Gœtzinger, G. ; **2**, Collet, L. W., 3.
——, Brandenburg.—**1**, Reck, H. ; Wahnschaffe, F., 2.
——, Canada (E.).—**0**, Spencer, J. W., 2 ; **1**, Kindle, E. M., 2, 3.
——, Congo Belge.—**2**, Sharpe, A.
——, Finland.—**0**, Ailio, J. ; Hænninen, K.
——, French Somaliland.—**2**, Dégoutin, M.
——, Isère.—**2**, Kilian, C. C. W., 2.
——, Italy (N.).—**0**, Blaas, J. ; Sacco, F., 13 ; **1**, Taramelli, T., 4, 11.
——, Lake District.—**1**, Pearsall, W. H.
——, Mexico.—**2**, Quevedo, M. A. de.
——, Nigeria.—**2**, Migeod, F. W. H.
——, Russia (N.W.).—**0**, Ailio, J.
——, S. Australia.—**0**, Howchin, W., 5 ; **2**, Fenner, C. N.
——, Sweden.—**0**, Carlzon, C., 2 ; Halden, B. ; **2**, Cleve-Euler, A. ; Osvald, H.
——, Transvaal.—**0**, Trevor, T. G.
——, glacial, Baltic area.—**2**, Antevs, E., 2.
——, ——, United States (N.W.).—**1**, Runner, J. J., 2 ; **2**, Davis, W. M., 3.
——, ice-dammed, Lübeck.—**1**, Schlunk, J., 3.
——, ——, Norway.—**1**, Holmsen, G.
——, ——, Poland.—**2**, Samsonowicz, J.
——, ——, Tyrol.—**0**, Hess, H., 3.
——, Pleistocene, Great Britain.—**2**, Meinzer, O. E.
——, Post-glacial, N.-W. Territories.—**2**, Cameron, A. E.
Lakes, saline, W. Australia.—**1**, Talbot, H. W. B.
——, sedimentation in, Alberta.—**2**, Johnston, W. A., 6.
——. *See also* Chad, L., Shotts, *&c.*
Lakeview (N.S.).—**1**, Faribault, E. R., 2.
Lamellibranchia.—**1**, Rozlozsnik, P., 6 ; **2**, Annandale, N. ; Grabau, A. W., 3 ; Marshall, P., 2 ; Peyrot, A.
——, Cambrian.—**0**, Rothpletz, A.
——, Carboniferous.—**0**, Butler, B. S. ; Butts, C., 2 ; Frech, F., 2 ; Hinds, H., 2 ; Holdhaus, K. ; Reed, F. R. C., 2 ; **1**, Benson, W. N., 2 ; **2**, Garwood, E. J. ; Greene, G. K. ; Morningstar, H. ; Petrascheck, W., 3 ; Smyth, L. B. ; Weigelt, J.
——, Cenomanian.—**1**, Greco, B.
——, Coal Measures.—**0**, Pruvost, P., 3 ; **1**, Pruvost, P., 6.
——, Cretaceous.—**0**, Blanckenhorn, M. ; Bœhm, J., 1, 2 ; Brun, P. de ; Clark, W. B., 2 ; Darton, N. H., 4 ; Frech, F., 2 ; Hennig, E., 2 ; Pruvost, P., 2 ; Stanton, T. W., 1, 2 ; Woldřich, J. ; Woods, H. ; Želízko, J. V., 6, 7, 10 ; Zuber, R., 3 ; **1**, Bœhm, J., 2, 4, 7 ; Burmester, L.: Douglas, J. A. ; Douvillé, H., 3, 7 ; Franke, F. ; Gillet, S. ; Greco, B. ; Packard, E. L., 2 ; Prashad, B.; Ravn, J. P. J.; Rosenkrantz, A., 2 ; Stefano, G. de, 2 ; **2**, Behrendsen, O. ; Berry, E. W., 20 ; Botez, G., 2; Cottreau, J.; Dietrich, W. O., 3 ; Gillet, — ; Hayasaki, I. ; Hopkins, O. B. ; Koch, F. ; Packard, E. L. ; Ravn, J. P. J. ; Reck, H., 5 ; Seitz, O., 2 ; Sommermeier, L. ; Stanton, T. W. ; Trechmann, C. T., 2 ; Wilckens, O., 1, 2.
——, Culm.—**1**, Hueffner, E. ; Weigelt, J.
——, Devonian.—**0**, Butts, C. ; Nettelroth, H. ; **1**, Asselberghs, E. ; Dahmer, G., 2, 3 ; Dienst, P. ; Fuchs, A., 4 ; Hueffner, E., 2 ; Lieber, H. ; Maillieux, E., 4 ; Muehlen, L. v. z. ; Richter, R., 2 ; Spriestersbach, J., 1, 2 ; Vieetor, W. ; **2**, Dœring, A., 2 ; Kiær, J., 4; Mansuy, H., 2, 10, 12 ; Reed, F. R. C., 1, 2 ; Shannon, W. G. St. J.
——, Eocene.—**0**, Abendanon, E. C. ; Fabiani, R., 7 ; Frech, F., 2 ; Oppenheim, P. ; **1**, Douvillé, H., 20 ; Gagel, C., 7 ; Stamp, L. D., 5 ; **2**, Bosworth, T. O. ; Fabiani, R., 8 ; Leriche, M., 7 ; Lukovitch, M. T. ; Newton, R. B. ; Teppner, W. ; Vincent, E. ; Wilckens, O., 2 ; Woods, H.
——, Jurassic.—**0**, Bœhm, J., 2 ; Butler, B. S. ; Roig, M. S., 2 ; **1**, Douvillé, H., 3 ; Grossouvre, A.

de, 3 ; Jaworski, E., 2 ; Kegel, W. ; Newton, R. B. ; Packard, E. L., 2 ; **2**, Behrendsen, O. ; Brill, R. ; Frentzen, K., 2 ; Jaworski, E., 3 ; Krumbeck, L., 6 ; Mansuy, H., 1, 4 ; Reck, H., 2 ; Riche, A. ; Thompson, B., 2.

——, Lias.—**1**, Hauff, B. ; Koch, F. ; Tilmann, N., 2 ; **2**, Fucini, A. ; Trueman, A. E., 3.

——, Miocene.—**0**, Dollfus, G. F., 21 ; Fabiani, R., 7 ; Gardner, Julia A. ; Martin, K., 2 ; Maury, C. J. ; Oppenheim, P., 8 ; Roig, M. S. ; Stefanini, G., 2 ; Vredenburg, E. W., 7 ; **1**, Chapman, F., 3 ; Checchia-Rispoli, G., 2 ; Gripp, K. ; Morgan, J. de ; Rovereto, G., 2 ; Vredenburg, E., 5 ; **2**, Bosworth, T. O. ; Clark, B. L., 2 ; Daus, H. ; Dickerson, R. E., 1, 3 ; Gómez, J. R. ; Petrascheck, W., 3 ; Popescu-Voiteşti, I., 4 ; Spieker, E. M. ; Trask, P. D. ; Woods, H.

——, Neocomian.—**1**, Gillet, S., 2.

——, Neogene.—**1**, Tesch, P., 2.

——, Oligocene.—**0**, Abendanon, E. C. ; Cossmann, A. E. M., 2 ; Dollfus, G. F., 4 ; Maury, C. J. ; **1**, Hubbard, B. ; **2**, Clark, B. L., 2 ; Fabiani, R., 8 ; Oppenheim, P. ; Petrascheck, W., 3.

——, Ordovician.—**0**, Bassler, R. S. ; Born, A. ; Miller, A. M. ; Nettelroth, H. ; Reed, F. R. C. ; Shaw, E. W., 5 ; **1**, Bekker, H. ; **2**, Mansuy, H., 3 ; Wilson, A. E.

——, Palæozoic.—**0**, Holtedahl, O., 6 ; Mansuy, H., 3, 5, 6 ; **1**, Maillieux, E., 4.

——, Permian.—**0**, Holdhaus, K. ; **1**, Airaghi, C., 6 ; Bisat, W. S., 2 ; Stauffer, C. R., 2 ; **2**, Wanner, C.

——, Permo-Carboniferous.—**2**, Colani, M. ; Mansuy, H., 5.

——, Pleistocene.—**0**, Baker, F. C. ; Chapman, F., 3 ; Dall, W. H., 2 ; Marr, J. E. ; Trechmann, C. T. ; **1**, Chapman, F., 3 ; Dall, W. H., 1, 2 ; Haas, F., 2 ; **2**, Baker, F. C. ; Dickerson, R. E., 3.

——, Pliocene.—**0**, Bell, Alfred ; Dall, W. H., 2 ; Menzel, H. ; Oppenheim, P., 8 ; Yokoyama, M. ; **1**, Dall, W. H., 1, 2 ; Haas, F., 2 ; Oppenheim, P. ; **2**, Dickerson, R. E., 3 ; Howe, H. V. ; Ionescu-Argetoaia, I., 10 ; Linstow, O. v., 3 ; Marwick, J., 2 ; Wenz, W., 5 ; Yokoyama, M.

——, Quaternary.—**0**, Bell, Alfred ; Johansen, A. C. ; Morse, E. S. ; **1**, Bárdarson, G. G. ; Bell, Alfred, 2 ; Pilati, G. K. ; Rovereto, G., 2 ; Tesch, P., 2 ; **2**, Bosworth, T. O. ; Goldring, W. ; Kennard, A. S. ; Linstow, O. v., 3 ; Reck, H.

——, Recent.—**2**, Whittaker, E. J.

Lamellibranchia, Rhætic.—**1**, Mariani, E., 15 ; **2**, Mansuy, H., 12.

——, Silurian.—**0**, Williams, H. S. ; **1**, Couffon, O.

——, Tertiary.—**0**, Bartrum, J. A., 2 ; Bœhm, J., 6 ; Marshall, P., 1, 6, 7 ; Oppenheim, P., 6 ; Suter, H., 1, 2 ; Teppner, W. v. ; Thomson, J. A., 5 ; **1**, Dickerson, R. E. ; Suter, H. ; Vredenburg, E., 2 ; **2**, Dall, W. H. ; Gregory, J. W. ; Marshall, P. ; Pilsbry, H. A.

——, Trias.—**0**, Butler, B. S. ; Diener, C., 2 ; Mansuy, H., 5 ; Repossi, E. ; Spitz, A., 10 ; Wurm, A., 1, 2 ; **1**, Assmann, P., 4; Bender, G. ; Jaworski, E. ; Lóczy, L. v., *fil*, 2 ; Mariani, E., 1, 6 ; Repossi, E., 3 ; **2**, Jaworski, E., 4 ; Krumbeck, L., 3 ; Mansuy, H., 1, 3, 4, 9–11 ; Petrascheck, W., 3 ; Riche, A. ; Toni, A. de ; Wanner, H. E.

——, borings in.—**2**, Reis, O. M., 3.

——, classification.—**0**, Bœhm, J., 2 ; **1**, Bœhm, J., 1, 9–11 ; Spriestersbach, J., 2 ; **2**, Diener, C. ; Krumbeck, L., 2 ; Vincent, E., 2.

——, evolution.—**1**, Douvillé, H., 22 ; **2**, Douvillé, H., 3.

——, geographical distribution.—**2**, Lange, E. ; Linstow, O. v., 3.

——, Germany.—**0**, Bœhm, J., 3 ; Zwiesele, H.

——, nomenclature.—**1**, Lambert, J., 2.

Lamellidens.—**1**, Prashad, B.

Lameta beds, Central Provinces.—**2**, Matley, C. A., 1, 2.

Lamna.—**1**, Alessandri, G. de, 2.

Lamongan vol. (Java).—**2**, Kemmerling, G. L. L., 3.

Lamprophyre.—**0**, Willmann, K. ; **1**, Beger, P. J., 2.

——, France (E.).—**0**, Kissling, A. ; **1**, Buecking, H.

——, Lombardy.—**1**, Artini, E., 3.

——, Saxony.—**1**, Beger, P. J.

——, United States.—**0**, Shannon, E. V., 9 ; **1**, Loughlin, G. F. ; **2**, Shannon, E. V., 2.

Lamspringe (Hanover).—**1**, Haack, —.

Lanarkshire.—**0**, Clough, C. T. ; **1**, Hinxman, L. W.

Lancashire.—**0**, Bolton, E. ; Smith, B. ; Travis, C. B.

——, borings.—**0**, Jones, T. A., 3, 5 ; **2**, Wray, D. A., 2.

——, coalfields.—**0**, Rushton, A. ; Sinnatt, F. S. ; **2**, Hickling, G.

——, coasts.—**0**, Travis, C. B., 2 ; **1**, Ashton, W.

——, ore-deposits.—**0**, Kendall, J. D., 1, 3, 4 ; **1**, Kendall, J. D., 1–3.

——. *See also* Lake District, Mersey R., *&c.*

Lance formation, N. & S. Dakota.—**0**, Stanton, T. W., 2 ; **1**, Hancock, E. T., 2.

Land-bridges, Atlantic.—**0**, Matthew, W. D., 4 ; **1**, Jaworski, E., 3.
—— - ——, Indian Ocean.—**0**, Arldt, T., 2.
—— - ——, S. Africa &.—**2**, Du Toit, A. L.
—— - ——, S. hemisphere.—**1**, Steinmann, G. ; **2**, Benham, W. B. ; Thomson, J. A.
—— - ——, Tyrrhenian Sea area.—**1**, Fejérvary, G. J. de.
—— - ——, W. Indies.—**0**, Matthew, W. D.
Land-surfaces, former, Somerset.—**1**, Greenly, E.
Landeck (Tyrol).—**0**, Hammer, W., 2, 8.
Landenian, Anglo - Franco - Belgian basin.—**1**, Leriche, M., 2 ; Stamp, L. D., 5 ; **2**, Leriche, M., 5.
Landes (France).—**0**, Dollfus, G. F., 4, 8.
Landl (Tyrol).—**2**, Furlani-Cornelius, M., 1, 2.
Landschneckenkalk, Mainz basin.—**1**, Fischer, K., 2.
Landslides.—**0**, Pollack, V., 2 ; **2**, Goldschmidt, V. M., 7 ; Schaffer, F. X.
——, France.—**0**, Kerforne, F., 2 ; **1**, Boisse de Black, Y.
——, Fribourg.—**0** & **1**, Girardin, P.
——, Germany.—**1**, Otto, T. ; Tietz, O., 3 ; **2**, Leuchs, K., 2.
——, Italy.—**0**, Gortani, M. ; Segré, C. ; **1**, Alessandri, G. de, 5 ; Salmojraghi, F., 4 ; Zuffardi, P., 2, 3.
——, Pamir.—**2**, Sckpilko, —.
——, Styria.—**1**, Lehmann, O., 2.
——, Sweden.—**2**, Sweden.
——, United States.—**0**, Atwood, W. W. ; Scheffel, E. R. ; **2**, Davis, W. M., 5.
——. *See also* ' Sackung.'
Landstrass (Carniola).—**1**, Heritsch, F., 6.
Långban (Sweden).—**1**, Aminov, G., 3 ; Flink, G. ; **2**, Flink, G.
Langdon Hills (Essex).—**2**, Wooldridge, S. W.
Langeneckgrat (Berne).—**1**, Gerber, E., 5.
Langhe (Piedmont).—**0**, Sacco, F., 11.
Languedoc (France).—**1**, Brun, P. de.
Lans Mts. (Isère).—**2**, Corbin, P.
Lanvéoc (Finistère).—**2**, Collin, L.
Laos (Fr. Indo-China).—**0**, Dussault, — ; **2**, Dussault, L., 1, 2 ; Mansuy, H., 2, 4–6, 8.
Lapilli. *See* Ejectamenta.
Lapland.—**1**, Geijer, P., 2.
Laqueuille (Puy-de-Dôme). — **1**, Glangeaud, P.
Lardeau (B.C.).—**1** & **2**, Bancroft, M. F.
Larderello (Tuscany).—**0**, Anon., 27.
Larkhall (Lanarksh.).—**1**, Hinxman, L. W.
Larroque (Tarn).—**2**, Mengaud, L.
Lasqueti I. (B.C.).—**2**, Mackenzie, J. D.
Laterite.—**0**, Davis, W. M., 6 ; Walther, J. ; **1**, Sampelayo, P. H. ; **2**, Lang, R., 2, 3 ; Voit, F. W.
——, Italy.—**1**, Dominicis, A. de, 2.
——, Sierra Leone.—**0**, Dixey, F., 1, 2.
——, Travancore.—**0**, Chacko, I. C., 3.
——, Uganda.—**1**, Wayland, E. J., 2, 15.
——, W. Australia.—**0**, Walther, J., 2 ; **1**, Talbot, H. W. B.
——. *See also* Ferretto.
Lateritic iron. *See* Iron.
Latitude, variations of.—**0**, Zeil, G., 5.
Latvia.—**2**, Philipp, H., 2.
Laubach (Hesse).—**0**, Schottler, W., 5.
Laubuseschbach (Nassau). — **2**, Michels, F.
Laue diagrams.—**1**, Aminov, G. ; **2**, Rinne, F., 4, 6, 8, 10 ; Scharizer, R.
Lauenburg (Holstein).—**1**, Schlunck, J., 5.
Laugnac (Lot-et-Garonne). — **0**, Blayac, J., 2.
Laumontite.—**1**, Shannon, E. V.
Laurinium.—**2**, Schœnfeld, G., 2.
Lausitz (Germany).—**0**, Keilhack, K., 9 ; **1**, Beger, P. J. ; **2**, Beger, P. J., 1, 2 ; Gagel, C. *See also* Niederlausitz.
Lautenthal (Harz).—**2**, Baumgærtel, B.
Lauterbach (Hesse).—**2**, Meyer, H. L. F., 7.
Lauterbach (Silesia).—**1**, Barsch, O., 3.
Lauterberg (Harz).—**2**, Stahl, A., 3.
Lauvitel, L. (Isère).—**2**, Kilian, C. C. W., 2.
Lava-tunnels, Samoa.—**1**, Thomson, J. A.
Laval (Mayenne).—**2**, Delépine, G.
Lavas.—**0**, Ferguson, J. B., 2 ; James, A. V. G. ; **2**, Born, A., 6 ; Diller, J. S.
——, Africa (E.).—**0**, Holmes, A., 9.
——, Ayrshire.—**0**, Dron, R. W.
——, Chile.—**0**, Bruhms, W.
——, Finland (E.).—**1**, Eskola, P., 2.
——, Hawaii.—**2**, Washington, H. S., 3.
——, Lazio.—**2**, Cumin, G., 2.
——, N. Rhodesia.—**2**, Mennell, F. P.
——, Norway.—**2**, Goldschmidt, V. M., 6.
——, Pacific area.—**2**, Washington, H. S., 4.
——, Portuguese E. Africa.—**2**, Mennell, F. P.
——, with cavities, Mexico.—**2**, Wittich, E. 4.

Lavas, leucite-, Campania.—**0**, Sabatini, V.
——, temperature of, Italy.—**2**, Malladra, A., 1, 2 ; Platania, G.
——. *See also* Ejectamenta.
'Lavas,' from burning coal-seams.—**0**, Fermor, L. L., 2.
Laverton (W. Austr.).—**0**, Talbot, H. W. B., 3, 4 ; **1**, Clarke, E. de C.
Lazio (Italy).—**0**, Clerici, E., 2 ; Meli, R., 3, 7–9 ; **1**, Angelis d'Ossat, G. de, 2.
—— (——), earthquakes.—**1**, Agamennone, G., 2, 4 ; **2**, Agamennone, G.
—— (——), petrography.—**1**, Clerici, E., 2 ; Cumin, G. ; **2**, Cumin, G., 3 ; Wepfer, E.
—— (——), stratigraphy.—**0**, Clerici, E. ; Meli, R., 4, 5 [6] ; Verri, A. ; **1**, Portis, A. ; **2**, Wepfer, E., 2.
—— (——), volcanism.—**1**, Papp, K. v., 2 ; Sabatini, V. ; **2**, Cumin, G., 2.
Le Croisic (Loire-Inférieure).—**2**, Ferronnière, G., 5.
Le Fort (Namur).—**1**, Bellière, M., 3.
Le Fret (Finistère).—**2**, Collin, L., 1, 4.
Lead.—**0**, Holmes, A., 15 ; **2**, Great Britain, 12 ; Muguet, — ; Stahl, A., 2.
——, Alaska.—**0** & **1**, United States, 5, 8 ; **2**, United States, 10.
——, Alps (E.).—**2**, Canaval, R.
——, Austria.—**0**, Hammer, W., 6 ; Kerner, F. v., 15 ; **2**, Bœhne, E. ; Dittler, E.
——, British Columbia.—**0**, Bancroft, M. F.
——, Canada.—**0**, Canada, 2 ; **1**, Canada, 6.
——, Cardiganshire.—**2**, Jones, O. T.
——, Carniola. — **0**, Hinterlechner, K., 4.
——, Côtes-du-Nord.—**1**, Bézier, T., 3, 4 ; **2**, Kerforne, F. J.
——, England (W.).—**1**, Dewey, H.
——, Great Britain.—**1**, Greenwood, H. W.
——, Lake District.—**0**, Kendall, J. D., 3 ; **1** & **2**, Eastwood, T.
——, Montgomeryshire.—**2**, Jones, O. T.
——, New South Wales.—**0**, Morrison, M., 2 ; **2**, Andrews, E. C. ; Jones, L. F.
——, N.-W. Territories.—**2**, Dawson, C. B.
——, Norway.—**0**, Schetelig, J.
——, Poland (S.W.).—**0**, Petrascheck, W., 6.
——, Quebec.—**2**, Alcock, F. J.
——, Queensland.—**0**, Jensen, H. I., 1, 2 ; **2**, Ball, L. C., 3.
——, Scotland.—**1**, Wilson, G. V.
——, Shropshire.—**2**, Hall, T. C. F. ; Smith, B., 2, 3.
——, Silesia.—**0**, Petrascheck, W., 6.
Lead, S. Australia.—**1**, Jack, R. L., 3 ; Ward, L. K., 4.
——, Spain.—**1**, Andrimont, R. d'.
——, Tasmania.—**0**, Hills, L.
——, Transvaal.—**1**, Ferguson, M.
——, Trentino.—**2**, Canaval, R., 2.
——, United States.—**0**, Butler, B. S. ; Hoeing, J. B., 2 ; Jones, E. L., *fil* ; Knopf, A., 3 ; Shaw, E. W., 5 ; United States, 4–6, 8 ; **1**, Umpleby, J. B. ; United States, 1, 6, 8 ; Wheeler, H. A. ; **2**, Clark, C. W., 2 ; Knopf, A. ; United States, 8, 10, 12.
——, Wales (N.).—**1**, Smith, B. ; **2**, Smith, B., 3.
——, W. Australia.—**0**, Talbot, H. W. B., 6 ; **1**, Feldtmann, F. R. ; **2**, Feldtmann, F. R., 2.
——, Yorkshire.—**0**, Varvill, W. W.
——, Yukon.—**0** & **1**, Cockfield, W. E., 2 ; **2**, Cockfield, W. E.
——. *See also* Galena.
Lead minerals.—**0**, Anon., 17 ; Emmons, W. H.
—— sulpho-salts.—**1**, Foshag, W. F., 4.
Leadhillite.—**0**, Russell, A., 2.
Leadville (Colo.).—**0**, Loughlin, G. F., 2.
Leaia.—**0**, Pruvost, P., 6 ; **1**, Pruvost, P., 3.
Léaz (Rhône valley).—**1**, Lugeon, M., 8.
Lech R. area (Austria-Bavaria).—**1**, Mueller, J.
Lechtal (Tyrol).—**0**, Ampferer, O., 1, 4.
Leckhampton Hill (Glos).—**2**, Gray, J. W.
Leeds (Yorks).—**2**, Everett, J. H. ; Gilligan, A., 1, 3.
Leeuwfontein (Transvaal).—**2**, Shand, S. J., 2.
Leeward Is. (W. Indies).—**2**, Hardy, F.
Leibnitz (Styria).—**0**, Dreger, J.
Leicestershire.—**1**, Richardson, W. A. ; Ridsdale, H. H. *See also* Charnwood Forest.
Leifite.—**1**, Bœggild, O. B., 3.
Leighton Buzzard (Beds).—**0**, Kitchin, F. L., 2 ; Lamplugh, G. W., 4 ; **1**, Kitchin, F. L. ; Lamplugh, G. W., 4 ; **2**, Kitchen, F. L., 2 ; Lamplugh, G. W.; Stamp, L. D., 5.
Leioceras.—**0**, Hoyermann, T.
Leipa. *See* Böhmisch-Leipa.
Leipisch. *See* Klein-Leipisch.
Leipsanosaurus.—**0**, Nopcsa, F., 8.
Leipzig (Saxony).—**0**, Werth, E.
Leithagebirge (Lr. Austria).—**0**, Gœtzinger, G., 4.
Leitzach R. area (Bavaria).—**0**, Lœsch, K. C. v., 2.
Lemieux (Queb.).—**2**, Alcock, F. J.
Lemnos I. (Greece).—**2**, Abrard, R., 2.
Leningrad (Russia).—**0**, Jentzsch, A.

Lenne valley (Westphalia). — **1**, Gœbel, F., 2.
Lenneschiefer, Germany.—**1**, Fliegel, G., 2 ; Fuchs, A. ; **2**, Winterfeld, F.
Lenzerhorn (Graubünden).—**2**, Arbenz, P., 2.
Leo.—**0**, Želízko, J. V., 9.
Leoben (Styria).—**1**, Schmidt, W.
Leogang (Salzburg).—**2**, Redlich, K. A., 2.
Leonora (W. Austr.).—**0**, Clarke, E. de C., 1, 3 ; **1**, Clarke, E. de C.
Lepidocoleus.—**2**, Withers, T. H., 2.
Lepidocyclina.—**0**, Cushman, J. A., 2 ; **1**, Douvillé, H., 2 ; **2**, Douvillé, H., 9 ; Lisson, C. I. ; Yabe, H., 4.
—— -beds, Aquitaine.—**0**, Douvillé, H., 5.
—— -limestone, Marshall Is. — **2**, Yabe, H., 3.
Lepidodendron.—**2**, Zalessky, M. D., 3.
Lepidolite.—**0**, Shannon, E. V., 6.
Lepidophyta.—**1**, Hœrich, O.
Lepidorbitoides.—**2**, Douvillé, H., 6.
Lepontine Alps. *See* Alps.
Leporidæ.—**1**, Dubois, G., 3.
Leptauchenia.—**1**, Thorpe, M. R., 2.
Leptestia.—**2**, Bekker, H.
Leptite, Sweden.—**0**, Hœgbom, I. ; Lindroth, G. T. ; **2**, Geijer, P., 5 ; Lindroth, G. T. ; Sundius, N., 1, 2.
Leptocleidus.—**2**, Andrews, C. W., 3.
Leptolepis.—**2**, Erasmo, G. d', 2.
Lessines (Hainault).—**1**, Wen-Hao, W.
Lessini Mts. (N. Italy).—**0**, Fabiani, R. ; **1**, Pia, J., 2.
Letcher Co. (Ky.).—**0**, Crider, A. F., 3.
Lettenkohle, Alsace-Lorraine. — **0**, Benecke, E. W.
Leucite.—**1**, Angelis d'Ossat, G. de.
—— -lavas. *See* Lavas.
—— -rocks.—**0**, Washington, H. S., 3, 5.
—— -tuff. *See* Tuffs.
Leucitite, Lazio.—**1**, Clerici, E., 2.
Leucitophyre, Rheinland.—**2**, Brauns, R., 13.
Leucopyrite, Valais.—**2**, Schmidt, C., 2.
Level, changes of.—**0** & **1**, Suess, F. E. ; **2**, Ulrich, E. O., 2.
——, ——, Adriatic area. — **0**, Gavazzi, A.
——, ——, Argentina. — **0**, Witte, L.
——, ——, Baltic area.—**2**, Antevs, E., 2.
——, ——, British Isles.—**2**, Great Britain, 1, 2.
——, ——, Denmark.—**1**, Jessen, A.
——, ——, E. Indies. — **1**, Molengraaff, G. A. F.
——, ——, Egypt.—**1**, Négris, P.
——, ——, Europe (N.).—**2**, Antevs, E.
Level, changes of, Fennoscandia.—**0**, Hœgbom, A. G., 1, 2.
——, ——, Fiji.—**0**, Davis, W. M., 4 ; Foye, W. G.
——, ——, Finland. — **1**, Berghell, H.
——, ——, France.—**1**, Lamothe, L. de ; **2**, Ferronnière, G., 2.
——, ——, Great Britain.—**1**, Ashton, W.
——, ——, Hampshire basin.—**2**, Hooley, R. W.
——, ——, Italy (S.).—**2**, Wepfer, E., 4.
——, ——, Japan.—**0**, Omori, F., 2, 4.
——, ——, Labrador.—**1**, Daly, R. A., 2.
——, ——, Manitoba.—**0**, Johnston, W. A.
——, ——, Mexico.—**0**, Wittich, E.
——, ——, Newfoundland.—**1**, Daly, R. A., 2, 3.
——, ——, Norway.—**0**, Holmsen, G. ; **1**, Rekstad, J.
——, ——, Nova Scotia.—**1**, Daly, R. A., 3.
——, ——, Peru.—**0**, Bosworth, T. O., 3 ; **1**, Bosworth, T. O., 2.
——, ——, Scandinavia.—**0**, Halden, B., 2 ; Moscheles, J.
——, ——, Schleswig-Holstein.—**1**, Wahnschaffe, F.
——, ——, Sierra Leone.—**0**, Dixey, F., 3.
——, ——, Sweden.—**0**, Sundelin, A.; **1**, Halden, B. E.; Sandegren, R.
——, ——, United States (E.).—**0**, Brown, C. W., 2 ; Fairchild, H. L., 9 ; Goldthwait, J. W. ; Vaughan, T. W., 3.
——, ——, Victoria.—**2**, Chapman, F., 9.
——, ——, Wellington (N.Z.).—**2**, Adkin, G. L. ; Cotton, C. A.
——, ——, coral-reefs &.—**0**, Daly, R. A. ; Davis, W. M.
——, ——, earthquakes &. — **1**, Branca, W., 3.
——, ——, epeirogeny &. — **1**, Machatschek, F.
——, ——, glaciation &.—**0**, Daly, R. A., 5 ; **1**, Daly, R. A. ; Négris, P., 5 ; **2**, Penck, A., 2, 5.
——, ——, isostasy &.—**1**, Bowie, W., 3.
——, ——, palæogeography &. — **0**, Dacqué, E.
——, ——. *See also* Elevation, Sea-level, *&c.*
Leven, L., area (Kinross-sh.).—**0**, Duncan, J.
Levighanite.—**1**, Manasse, E.
Levis (Queb.).—**2**, Sayles, R. W., 2.
Lewes (Sussex).—**0**, Strahan, A.
Lewisian, Argyll.—**2**, Jehu, T. J.
Lhanbryde (Elgin).—**0**, Taylor, W.
Lherzolite, Piedmont.—**0**, Franchi, S., 3.

Lias.—**0**, Deecke, W. ; **2**, Trueman, A. E., 3.
——, Alps.—**2**, Girardin, P.
——, Bornholm.—**1**, Malling, C.
——, Cardiff area.—**0**, Cox, A. H., 1, 2.
——, Caucasus.—**1**, Bonnet, P.
——, Dorset.—**2**, Lang, W. D., 2.
——, England.—**0**, Buckman, S. S., 2 ; **1**, Lamplugh, G. W., 5.
——, France.—**1**, Bernauer, F. ; **2**, Chaput, E., 2 ; Dubar, G.
——, Germany.—**1**, Grupe, O., 5, 8 ; Hauff, B. ; Mestwerdt, A. ; Naumann, E., 4 ; Schmierer, T., 3 ; Schrœder, H., 4, 6 ; **2**, Meyer, H. L. F., 7 ; Schalch, F., 3.
——, Glamorgan.—**0** & **2**, Trueman, A. E., 2.
——, Hebrides.—**2**, Spath, L. F., 3, 4.
——, Hungary.—**1**, Vigh, J.
——, Italy.—**0**, Spitz, A., 8 ; **1**, Mariani, E., 3 ; Papp, K. v., 2 ; **2**, Fucini, A.
——, Leicestershire.—**1**, Richardson, W. A.
——, Morocco.—**0**, Abrard, R. ; **2**, Navarro, L. F.
——, Oxfordshire. — **1**, Richardson, L., 3.
——, Peru.—**1**, Douglas, J. A. ; Tilmann, N., 2.
——, Slovakia.—**1**, Ferenczi, S.
——, Somerset.—**2**, Trueman, A. E.
——, Switzerland.—**0**, Jeannet, A., 2 ; **1**, Amann, J. ; **2**, Gerber, E., 2 ; Schalch, F., 3.
——, Warwickshire.—**2**, Richardson, L., 4.
Liassic, boulders, in Pleistocene, Germany.—**0**, Kegel, W. ; **1**, Ernst, W. ; **2**, Œrtel, W., 2.
—— rocks dredged from English Channel.—**2**, Dangeard, L.
Liaspermum.—**0**, Grandori, L.
Libethenite.—**2**, Cesàro, G., 2.
Libyan series, Egypt.—**2**, Oppenheim, P., 6.
Lichadidæ.—**0**, Fœrste, A. F., 6.
Lichas.—**1**, Gardiner, C. I. ; **2**, Richter, R., 6.
Lichterfelde. *See* Gross-Lichterfelde.
Liddisdale (S. Scotland). — **0**, McRobert, R. W.
Liebenthal (Silesia).—**1**, Kuehn, B., 2.
Liechtenstein.—**0**, Truempy, D.
Liége (Belgium).—**0**, Fourmarier, P., 4 ; Liége ; Lohest, M. ; **1**, Fourmarier, P., 11 ; Ostrowick, I. de R. d' ; **2**, Anten, J., 2 ; Fourmarier, P., 9 ; Poskin, A.
—— (——), Cambrian.—**0**, Anten, J., 6 ; Asselberghs, E. ; Dorlodot, L. de ; **1**, Anten, J.
—— (——), Coal Measures.—**0**, Fourmarier, P., 2 ; Humblet, E. ; Renier, A. ; **1**, Humblet, E. ; **2**, Bogaert, H. ; Fourmarier, P. ; Humblet, E.
Liége (Belgium), Devonian. — **0**, Anten, J. ; **1**, Asselberghs, E., 2, 4 ; Maillieux, E., 2 ; **2**, Leblanc, E.
—— (——), igneous & metamorphic rocks.—**0**, Fraipont, C. ; **1**, Anten, J., 3 ; Fourmarier, P., 9, 10 ; **2**, Anten, J., 3.
—— (——), Palæozoic.—**0**, Anthoine, R., 2 ; Fourmarier, P., 10 ; **1**, Fourmarier, P., 2, 4, 12 ; Lohest, M. ; Stainier, X., 6 ; **2**, Salée, A.
—— (——), sands.—**0**, Anten, J., 3 ; **1**, Anten, J., 2 ; **2**, Anten, J., 4.
——, tectonics.—**0**, Fourmarier, P., 3 ; Humblet, E., 2 ; **1**, Fourmarier, P., 3, 7, 8 ;
—— (——), Tertiary.—**0**, Anten, J., 2 ; Fourmarier, P., 5 ; **1**, Fourmarier, P., 6.
Liége (Liége).—**0**, Liége.
Lienne valley (Liége).—**0**, Anten, J., 6 ; Asselberghs, E. ; **1**, Anten, J.
Lierneux (Liége).—**1**, Anten, J., 2.
Liesing (Lr. Austria.).—**1**, Toula, F.
Liestal (Basel).—**0**, Leuthardt, F. ; **1**, Leuthardt, F., 2.
Lievrite.—**2**, Muegge, O., 7.
Life, biogenetic law &.—**2**, Garstang, W.
——, carbon dioxide &.—**2**, Petrie, W. M. F.
——, classification.—**2**, Pia, J.
——, climates &.—**2**, Case, E. C. ; Mohr, E.
——, distribution.—**1**, Born, A., 2.
——, earliest.—**0**, Rothpletz, A. ; **2**, Allen, F. J. ; Dines, J. S. ; Gregory, J. W., 6 ; Macfie, R. C.
——, evolution.—**0**, Sacco, F., 9 ; Walther, J., 5 ; Zeil, G., 2 ; **1**, Jackson, R. T. ; Petronievics, B. ; Philippi, E. ; **2**, Boswell, P. G. H., 6.
——, history &.—**0**, Merriam, J. C.
——, Indo-Australasian.—**2**, Weber, M.
——, mass-extinction of.—**2**, Drevermann, F., 4.
——, in meteorites, ores, etc.—**1**, Galippe, V.
——, origin.—**1**, Abelspies, J. F. C.
——, palæontology &.—**0**, Bather, F. A., 3 ; **2**, Bather, F. A.
——, Pre-Cambrian.—**2**, Keyes, C. R., 2.
——, transmission of.—**2**, Wepfer, E., 3.
——, Trias.—**0**, Diener, C., 3.
Lignin.—**2**, Fischer, F.
Lignite.—**1**, Emszt, K., 2 ; Stevenson, J. J. ; **2**, Bone, W. A. ; Doliński, J.
——, Alaska.—**0**, Capps, S. R., 3, 4.
——, Czechoslovakia.—**0**, Želízko, J. V., 11 ; **2**, Smetana, V., 2.
——, Dalmatia.—**0**, Kerner, F. v., 8, 10.
——, England.—**0**, Strahan, A., 4.

Lignite, France.—**0**, Gorceix, C., 3 ; **1**, Hure, A., 2.
——, French Indo-China.—**2**, Colani, M., 2.
——, Hawke's Bay (N.Z.).—**2**, Morgan, P. G., 7.
——, Japan.—**0**, Iwasaki, C.
——, N. Dakota.—**1**, Hancock, E. T., 2 ; **2**, Bauer, C. M.
——, N. Shan States.—**2**, Moldenke, E.
——, Poland.—**1**, Doliński, J.
——, S. Australia.—**1**, Ward, L. K., 1, 5, 7 ; Winton, L. J., 4, 5.
——, Spain.—**1**, Depéret, C. ; Gavala, J.
——, Tunis.—**2**, Allemand-Martin, A.
——, Yunnan.—**2**, Colani, M., 2.
Liguria (Italy). — **0**, Baggi, V. ; Franchi, S., 2 ; Sacco, F., 30 ; Zaccagna, D. ; **1**, Agamennone, G. ; Crema, C., 2.
—— (——), petrology.—**0**, Carrozza, E. ; Curiat, D. ; **1**, Franchi, S., 3 ; Maddalena, L., 5.
—— (——), stratigraphy.—**0**, Repossi, E. ; **1**, Stefani, C. de ; **2**, Rovereto, G., 2.
——. *See also* Apennines (Ligurian).
Lille (Nord).—**1**, Pruvost, P., 2.
Lilleström (Norway).—**0**, Œyen, P. A., 3.
Lillia.—**2**, Franceschi, R., 2.
Lillooet (B.C.).—**1**, Reinecke, L.
Lilydale (Vict.).—**2**, Chapman, F., 7.
Lima (Peru).—**1**, Dueñas, E. I.
Limburg (Baden).—**2**, Meigen, W., 2.
Limburg (Belgium).—**0**, Lohest, M., 3.
Limburg (Holland).—**2**, Halet, F. ; Leriche, M. ; Pannekoek van Rheden, J. J.
Limburgite, Baden.—**2**, Meigen, W., 2.
——, Baluchistan.—**0**, Das Gupta, H. C.
——, Nigeria.—**1**, Mesch, D.
Lime, in sea-bottom sediments.—**2**, Thoulet, J., 3. *See also* Sand-lime brick.
Lime Creek shales, Iowa.—**1**, Thomas, A. O.
Lime-silicate rocks, Bavaria. — **2**, Laubmann, H.
—— - —— ——, Bohemia. — **2**, Sokol, R., 2.
Limerick.—**1**, Cole, G. A. J., 4 ; Prior, G. T., 2.
Limestone-breccia. *See* Breccias.
—— -gneiss. *See* Gneiss.
—— -shales. *See* Shales.
—— -tuff. *See* Tuffs.
Limestones.—**0**, Eakle, A. S., 2 ; Eichleiter, C. F. ; Lapparent, J. de, 2 ; **1**, Murray-Hughes, R. ; **2**, Galloway, J. J., 2.
——, Antarctica.—**0**, Skeats, E. W., 6.
——, Congo Belge.—**1**, Dorlodot, L. de, 1, 3.
Limestones, Czechoslovakia. — **1**, Lóczy, L. v., 3 ; Wenz, W., 2.
——, Devon.—**0**, Worth, R. H.
——, Fiji.—**0**, Foye, W. G.
——, Finland.—**0** & **1**, Laitakari, A.
——, France (S.).—**0**, Martonne, E. de ; Oulianov, N., 3 ; **1**, Lapparent, J. de, 2.
——, Germany.—**0**, Behr, F. M. ; **1**, Krause, P. G. ; Schrœder, H., 7 ; **2**, Klæhn, H.
——, Hungary.—**1**, Kormos, T., 7.
——, India.—**0**, Balaji Rao, B. ; Chacko, I. C., 2 ; Iyer, K. R. K. ; Jaya Ram, B.
——, Italy.—**0**, Meli, R., 8 ; **1**, Maddalena, L., 5 ; Repossi, E., 3 ; Salmojraghi, F., 3, 6 ; Tacconi, E. ; **2**, Franchi, S., 2.
——, Morocco (Sp.).—**2**, Navarro, L. F.
——, New Zealand.—**0**, Morgan, P. G., 6.
——, Norway.—**1**, Oxaal, J. ; Rekstad, J.
——, Ontario.—**0**, Fréchette, H.
——, Quebec.—**0**, Fréchette, H.
——, S. Africa.—**0** & **1**, Wybergh, W. ; **2**, Schneiderhœhn, H.
——, Sweden.—**0**, Rosén, S. ; **1**, Eckermann, H. v. ; **2**, Lindroth, G. T.
——, United States.—**0**, Jaya Ram, B. ; **1**, Ferguson, H. G., 2 ; Hastings, J. B. ; Jandorf, M. L. ; **2**, Eskola, P., 2.
——, Vaud.—**1**, Amann, J.
——, Victoria.—**0**, Ferguson, W. H. ; Ower, L. H.
——, W. Australia.—**0**, Blatchford, T., 6.
——, 'Belgian granite.'—**2**, Herrmann, O.
——, as building-stones. — **1**, Bownocker, J. A. ; Elsden, J. V.
——, in coal - seam, Scotland.—**0**, Conacher, H. R. J.
——, chlorite-, Tuscany.—**1**, Fossa-Mancini, E., 3.
——, crystalline, Portuguese E. Africa.—**0**, Holmes, A., 11.
——, ——, S. Victoria Land.—**2**, Smith, W. C., 2, 3.
——, koppite-, Baden.—**2**, Sœllner, J., 2.
——, lacustrine, Macedonia. — **1**, Grossouvre, A. de.
——, metamorphism &, E. Indies.—**2**, Brouwer, H. A., 3, 4, 6 ; Romang, M.
——, oolitic, Kentucky.—**0**, Crump, M. H.
——, physiography &.—**1**, Scheu, E. ; **2**, Fourmarier, P., 5 ; Wray, D. A.
——, pisolitic, Seine-et-Oise.—**2**, Lemoine, P., 2.
——, water &.—**0**, Welsch, J. ; **1**, Howchin, W., 6 ; Martel, E. A. ; **2**, Liégeois, R., 2.

Limestones. *See also* Bryozoa-limestone, Landschneckenkalk, *&c*
Limnestheria.—**0**, Wright, M. C.
Limonite.—**2**, Leitmeier, H., 5.
——, British Columbia.—**1**, Mackenzie, J. D.
——, Kentucky.—**0**, Caldwell, W. B.
——, Porto Rico.—**0**, Fettke, C. R.
——, Silesia.—**1**, Assmann, P., 2.
——. *See also* ‘ Bohnerz.’
Linarès (Jaen).—**1**, Andrimont, R. d’.
Lincolnshire.—**2**, Sheppard, T., 10.
Linden (Hesse).—**0**, Steuer, A., 6.
Linlithgowshire.—**0**, Cadell, H. M., 3 ; Day, T. C., 3 ; Lee, G. W., 2 ; **2**, Cadell, H. M.
Linnæite.—**2**, Eichler, A.
Linth valley (Switzerland).—**2**, Jeannet, A.
Lintons (Vict.).—**0**, Baragwanath, W. ; Herman, H., 2.
Lions, Gulf of (Mediterranean).—**2**, Thoulet, J.
Lipari Is. (Italy).—**0**, Washington, H. S., 4 ; **1**, Lóczy, L. v. ; Papp, K. v., 2 ; Washington, H. S., 4 ; **2**, Bergeat, A., 4, 5. *See also* Stromboli *&* Vulcano.
Lipnik.—**2**, Pietzsch, O.
Lippe (Germany).—**1**, Mestwerdt, A., 2, 4 ; Naumann, E., 11 ; Stoller, J., 6.
Liquids, refractive index determination.—**1**, Thomas, Herbert H.
Liri valley (Italy).—**2**, Franchi, S., 2.
Liruie Hills (Nigeria).—**2**, Gordon-Thomas, G.
‘ Lissons.’ — **1**, Richardson, L., 2 ; Silvester, N. L.
Liteň (Bohemia).—**2**, Kodym, O.
Lithgow (N.S.W.).—**0**, Morrison, M., 2.
Lithium minerals.—**0**, United States, 5, 9.
—— sulphate.—**2**, Johnsen, A., 1, 4.
Lithology, Angola.—**0**, Souza, P. de, 2.
——, Texas.—**1**, Goldman, M. I., 2.
Lithophyllum.—**0**, Lemoine, P., i, 2 ; **1**, Lemoine, P.
Lithophysæ.—**2**, Rogers, A. F., 3.
Lithosphere. *See* Earth.
Lithostrotion.—**1**, Smith, S.
Lithothamnium.—**1**, Lemoine, P.
Lithuania.— **1**, Hess von Wichdorff, H., 5 ; Linstow, O. v. ; **2**, Philipp, H., 2 ; Wetzel, W., 2.
Litorina-horizon, Baltic area.—**1**, Jessen, A. ; **2**, Sundelin, U., 3.
—— ——, Finland (S.).—**0**, Ramsay, Wilhelm.
Little Carpathians (Slovakia).—**0**, Toborffy, G. v. ; Toborffy, Z. v. ; **1**, Toborffy, G. v., 2 ; **2**, Krusch, P., 2.
Little Coxwell (Berks).—**0**, Davey, E. C.
Little Heath (Herts).—**0**, Barrow, G. ; Gilbert, C. J.
Little River group, New Brunswick. —**0**, Matthew, G. F.
Little Smoky R. area (Alberta).—**1**, McLearn, F. H.
Liverpool area.—**0**, Jones, T. A., 1–4 ; **1**, Hewitt, W. ; **2**, Walker, W. T.
Lizard (Cornwall).—**0**, Bonney, T. G. ; **1**, McPherson, G.
Llandoverian. *See* Valentian.
Llangollen (Denbighsh.).—**0**, Wills, L. J., 1, 2 ; **1**, Wills, L. J., 2 ; **2**, Wills, L. J.
Llanoria.—**1**, Miser, H. D., 2.
Llanwrtyd (Breconsh.).—**1**, Stamp, L. D., 7.
Llwydmor Bâch (Carnarvonsh.).—**2**, Heard, A., 2.
Loams.—**1**, Boswell, P. G. H.
——, Calvados.—**2**, Azam, A.
——, Rhine Valley.—**1**, Quaas, A., 8 ; **2**, Meigen, W.
Lobenstein (Thuringia).—**2**, Haf, H.
Lobnig (Carinthia).—**1**, Canaval, R.
Lochend (Edinburgh).—**0**, Allen, R.
Lodes, Cornwall.—**1**, Davison, E. H.
Loeang I. (D.E.I.).—**2**, Brouwer, H. A., 12.
Loess.—**0**, Sœrgel, W., 5 ; **1**, Keilhack, K., 7 ; Wright, G. F. ; **2**, Meigen, W. ; Visher, S. S., 2.
——, Argentina.—**1**, Roth, S.
——, Durham.—**0**, Trechmann, C. T.
——, Germany.—**0**, Brueckner, E., 5 ; Deecke, W., 4 ; Keilhack, K., 8 ; **1**, Dittrich, G. ; Grupe, O., 7 ; Kœhne, W. ; **2**, Meyer, H. L. F.
——, Lower Austria.—**0**, Wiegers, F.
——, Mississippi Valley. — **2**, Winchell, A. N.
——, New Zealand.—**0**, Wild, L. J.
——, Rhine Valley (Lower). — **1**, Quaas, A., 8 ; Zimmermann, E., II, 10.
——, Volga basin.—**1**, Mohr, H., 2.
Lœtschberg (Oberland).—**0**, Poole, J. H. J.
Logroño (Spain). — **2**, Joly, H., 2, 3.
Loire-Inférieure (France).—**0**, Kerforne, F., 6 ; **1**, Carpentier, A. ; **2**, Ferronnière, G., 4, 5; Ganichaud, B. ; Kerforne, F. J., 4, 9 ; Péneau, J., 1–5.
Loire valley (France).—**0**, Ferronnière, G. ; **1**, Chaput, E.
Loiret (France).—**0**, Denizot, G., 4.
Löllingite.—**2**, Beutell, A., 11.
Lomagundi (S. Rhod.).—**0**, Maufe, H. B., 2 ; Molyneux, A. J. C.
Lombardy (Italy).—**1**, Bonomini, C. ; Chelussi, I., 5 ; Cornelius, H. P. ; Maddalena, L., 2 ; Mylius, H. ; Repossi, E., 3 ; Taramelli, T., 2.
—— (——), igneous & metamorphic rocks.—**1**, Artini, E., 3 ; Repossi, E., 8, 9, 11 ; **2**, Azzini, F.
—— (——), Mesozoic.—**1**, Alessandri, G. de, 3, 4 ; Bussandri, G. ; Mariani, E., 3, 14 ; Repossi, E.

Lombardy (Italy), minerals.—**1**, Artini, E., 1, 2 ; Ferrari, M. ; Repossi, E., 4–6 ; Salmojraghi, F., 1, 2.
—— (——), physiography.—**1**, Craveri, M. ; Del Vecchio, C., 2 ; Merciai, G. ; Salmojraghi, F., 4.
—— (——), stratigraphy.—**0**, Bonomini, C. ; **1**, Brunati, R. ; Mariani, E., 7, 13 ; Salmojraghi, F., 5 ; **2**, Repossi, E.
—— (——), tectonics.—**0**, Spitz, A., 2, 6 ; Tilmann, N. ; **1**, Cacciamali, G. B., 1–3 ; Staub, R., 3 ; **2**, Buelow, E. U. v., 2 ; Seitz, O.
—— (——), Trias.—**1**, Airaghi, C., 8, 11 ; Mariani, E., 1, 15 ; Repossi, E., 7 ; Staub, R., 10.
London.—**2**, Bromehead, C. E. N., 1, 2.
——, Museum of Practical Geology. **2**, Great Britain, 7.
——, stones used in buildings.—**1** & **2**, Elsden, J. V.
London Basin.—**0**, Baker, H. A., 1, 2 ; Barrow, G. ; **1**, Dewey, H., 2 ; Stamp, L. D., 6 ; **2**, Bromehead, C. E. N., 3 ; Dewey, H., 2 ; Woodward, H. B.
—— ——, water.—**0** & **1**, London.
London Clay, Ango-Franco-Belgian basin.—**1**, Stamp, L. D., 5.
—— ——, Berkshire. — **2**, Wrigley, A.
—— ——, Middlesex.—**2**, Dewey, H.
—— ——, vegetation on.—**2**, Monckton, H. W.
Longfield (Kent).—**1**, Priest, S.
Longwy (Meurthe-et-Moselle). — **0**, Cayeux, L., 3 ; **1**, Cayeux, L., 5.
Lontzen (E. Belgium).—**1**, Renier, A.
Lonza R. area (Valais).—**1**, Swiderski, B.
Lophiodon.—**1**, Schrœder, H., 5 ; Stehlin, H. G.
Loricula.—**0**, Withers, T. H.
Lörrach (Baden).—**2**, Wilser, J. L.
Lorraine.—**0**, Kessler, P., 2 ; Moureu, C. ; **1**, Bernauer, F. ; **2**, Barrois, C., 2 ; Bleicher, M. G.
——, geological survey.—**0**, Werveke, L. v., 1, 2, 17, 18.
——, iron.—**0**, Berg, G., 4 ; Cayeux, L., 5 ; Langrogne, — ; Margerie, E. de ; **1**, Brooks, A. H. ; Cayeux, L. ; **2**, Berg, G., 11 ; Nicou, P.
——, Jurassic.—**1**, Kluepfel, W. ; **2**, Thiéry, P., 1, 2.
——, Trias.—**0**, Benecke, E. W. ; Boden, K., 2 ; Werveke, L. v., 15 ; **2**, Kraus, E., 3.
——, water.—**0**, Werveke, L. v., 5, 6, 13, 14 ; **2**, Kluepfel, W.
Los Angeles (Cal.).—**1**, Taber, S., 2.
Losheimerwald (E. Belgium).—**2**, Anten, J., 2.
Lot R. (France).—**0**, Romieux, —.
Lot-et-Garonne (France).—**0**, Blayac, J., 2 ; Déguilhem, P. ; Labrie, J. ; Romieux, —.
Lothians (Scotland).—**2**, Berg, G.
Lotru Mts. (Wallachia).—**2**, Rotman, D., 3, 4.
Lough Neagh beds, Tyrone.—**2**, Johnson, T., 1, 3.
Louhossoa (Basses-Pyrénées). — **1**, Bertrand, L., 2.
Louise, L. (Alberta).—**2**, Johnston, W. A., 6.
Louisiade Archipelago (Pacific).—**2**, Davis, W. M., 6.
Louisiana (U.S.A.).—**0**, Bates, M. ; Matson, G. C., 1, 3 ; **1**, Miser, H. D., 2.
Lourdes (Hautes-Pyrénées).—**2**, Viennot, P., 3.
Lovoï valley (Congo Belge).—**0**, Richet, E.
'Low-sulphur' coal. *See* Coal.
Löwenberg (Silesia).—**0**, Kuehn, —.
Löwenhagen (E. Prussia).—**1**, Meyer, E., 2, 5.
Lower Austria.—**0**, Ampferer, O., 9 ; Hinterlechner, K., 4 ; Sander, B., 2 ; Wiegers, F. ; **1**, Grimmer, J. ; Hassinger, H.
—— ——, geology.—**0**, Toborffy, G. v. ; **1**, Mohr, H. ; Spitz A. ; **2**, Friedl, K. ; Trauth, F.
—— ——, petrography.—**0**, Grengg, R. ; Hinterlechner, K., 3 ; **1**, Jugovics, L., 2 ; **2**, Marchet, D.
—— ——, stratigraphy.—**0**, Petrbok, J. ; Toula, F., 2 ; Trauth, F., 2 ; **1**, Ampferer, O. ; Friedl, K.
—— ——, Tertiary.—**0**, Gœtzinger, G., 4 ; Krulla, R. ; Vetters, H. ; **1**, Toula, F. ; **2**, Nowak, E., 3 ; Richarz, P. S.
—— ——, water.—**0**, Eichleiter, C. F., 3 ; Vetters, H., 2 ; **2**, Waagen, L.
—— ——. *See also* Vienna Basin.
Lower California (Mexico).—**0**, Wittich, E. ; **1**, Dall, W. H., 1, 2 ; **2**, Darton, N. H. ; Davis, W. M., 2 ; Heim, Arnold, 2 ; Merrill, G. P., 6.
—— ——, mineral resources. — **0**, Paredes, T. ; **1**, Bustamante, M. ; **2**, Wittich, E., 1, 3.
Lower Greensand, Bedfordshire.—**0**, Kitchin, F. L., 2 ; Lamplugh, G. W., 4 ; **1**, Kitchin, F. L. ; Lamplugh, G. W., 4 ; **2**, Kitchin, F. L., 2 ; Lamplugh, G. W. ; Stamp, L. D., 5.
—— ——, England (E.).—**2**, Whitaker, W., 2.
—— ——, Norfolk.—**0**, Pringle. J.
Loxley valley (Yorks).—**1**, Haworth, J.
Loyalty Is. (Pacific).—**1**, Lacroix, A.
Lozère (France).—**2**, Glangeaud, L., 3. *See also* Margeride Mts.
Lübben (Brandenburg).—**1**, Kaunhowen, F., 6.
Lübbenau (Brandenburg).—**1**, Kaunhowen, F., 6.
Lübeck (Germany).—**1**, Gagel, C. ; Schlunck, J., 1, 3.

Lublin (Poland).—**1**, Gagel, C., 8.
Lublinite.—**2**, Lang, R., 4 ; Muegge, O.
Lübzin (Pomerania).—**0**, Hess von Wichdorff, H., 2.
Lucalla R. area (Angola).—**0**, Holmes, A., 4.
Lucerne (Switzerland).—**0**, Frei, R. ; **1**, Gerber, E., 1, 2, 6 ; Jeannet, A. ; **2**, Mollet, H. ; Studer, T.
Lucerne, L. area (Switzerland).—**0**, Buxtorf, A.
Luciite, Saxony.—**1**, Beger, P. J.
Luckenwalde (Brandenburg). — **1**, Schucht, F.
Lucknow (N.S.W.).—**2**, Harper, L. F., 3.
Lucky Valley (Queensl.).—**1**, Ball, L. C.
Lüderitzbucht (S.-W. Afr.).—**0**, Rand, R. F.
Lüdinghausen (Westphalia). — **0**, Bœhm, J., 4.
Ludlamite.—**0**, Buttgenbach, H.
Ludwigia concava zone, Languedoc.—**1**, Brun, P. de.
Ludwigite.—**1**, Shannon, E. V., 3, 10 ; **2**, Shannon, E. V., 12.
Lugano L. area (Lombardy-Tessin).—**2**, Seitz, O.
Lugau (Saxony).—**2**, Krug, H.
Luhačovice (Moravia).—**0**, Eichleiter, C. F., 2.
Luminescence, minerals.—**2**, Michel, H.
Lüneburg (Hanover).—**2**, Ernst, W. ; Pompeckj, J. F., 5.
Lüneburgite.—**1**, Grill, E.
Lunigiana (Tuscany).—**2**, Fracassi, G.
Lunzer beds, Austria.—**1**,Grimmer, J.
Lurisia (Piedmont).—**1**, Bellini, R., 3.
Lusitanian province, plantæ &.—**1**, Boulger, G. S.
Lustleigh (Devon).—**0**, Edge, A. B.
Lutetian, Douro R. area.—**2**, Roman, F., 2.
——, France.—**0**, Hure, A., 1, 2 ; **2**, Douvillé, H. ; Leriche, M., 10.
——, Sinai.—**2**, Douvillé, H., 2.
Lutra.—**1**, Dubois, G., 4.
Luxembourg (Belgium), Cambrian.—**0**, Anten, J., 4 ; Dorlodot, L. de.
—— (——), Devonian.—**1**, Asselberghs, E., 1, 6 ; Stainier, X., 4 ; **2**, Asselberghs, E., 3, 6 ; Fourmarier, P., 2 ; Leblanc, E.
—— (——), Trias.—**1**, Gœtz, C.
Luxemburg (Duchy).—**0**, Joly, H. ; Werveke, L. v., 15 ; **1**, Brooks, A. H. ; Gœtz, C. ; **2**, Gœtz, C. ; Joly, H., 5.
Lwow (Poland).—**0**, Oppenheim, P., 2 ; Pavlovski, S. ; Zuber, R., 3 ; **1**, Doliński, J., 2 ; Hœfer, H. v., 4 ; **2**, Voiteşti, I. Popescue.
Lys valley (Piedmont).—**0**, Sacco, F., 32.
Lysorophus.—**0**, Sollas, W. J., 2.
Lystrosaurus.—**0**, Das Gupta, H. C., 3.
Lytoceras.—**0**, Oppenheimer, J.
Lyttoniinæ.—**2**, Frederiks, G., 3.

M

Maas R. area (Holland).—**1**, Kurtz, E., 2.
Macacus.—**2**, Athanasiu, S. C., 4, 5.
Macbiehill (Peebles-sh.).—**0**, Day, T. C., 1, 2.
Macclesfield (Ches.).—**0**, Greenwood, H. W.
Macclesfield (S. Austr.).—**2**, Ward, L. K., 2.
Macco ' limestone.—**0**, Meli, R., 8.
Macedonia.—**0**, Dœlter, C. ; Ogilvie, A. G. ; **1**, Erdmannsdœrffer, O. H., 2 ; Grossouvre, A. de ; Welter, O. A., 4 ; **2**, Bourcart, J. ; Oppenheim, P., 9 ; Wurm, A.
MacEnery, J., Kent's Cavern &.—**1**, Lowe, H. J.
Machœroprosopus.—**2**, Mehl, M. G.
Machairodus.—**2**, Athanasiu, S. C., 7 ; Woldřich, J.
Macigno.—**1**, Bellière, M., 2 ; **2**, Fossa-Mancini, E., 4.
Mackay (Idaho).—**1**, Umpleby, J. B.
Mackensite, Czechoslovakia. — **2**, Kretschmer, F., 4.
Mackenzie R. area (N.-W. Terr.).—**0**, Jones, W. ; **1**, Bosworth, T. O., 3 ; Kindle, E. M., 1, 4 ; **2**, Cameron, A. E.
McMurdo Sound area (Antarctica).—**2**, Debenham, F., 1, 2 ; Smith, W. C., 2.
Macquarie I. (Subantarctica).—**2**, Benham, W. B.
Macropneustes.—**1**, Lupano, G.
Macropoma.—**1**, Watson, D. M. S., 2.
Macrotherium.—**2**, Forster-Cooper, C.
Macrura, Eocene.—**2**, Bosworth, T. O. ; Woods, H.
——, Jurassic.—**1**, Richardson, L., 5 ; **2**, Fischer, P. H., 1, 2 ; Van Straelen, V., 4.
——, Lias.—**1**, Colosi, G.
——, Miocene.—**2**, Rathbun, M. J.
——, Oligocene.—**1**, Van Straelen, V.
Madagascar.—**0**, Lacroix, A., 7 ; **2**, Lacroix, A., 2, 3 ; Perrier de la Bathie, H.
——, Africa &.—**0**, Arldt, T., 2.
——, mineral resources.—**0**, Lacroix, A., 8 ; **2**, Lumb, A. D. ; Muguet, —.
Madeira.—**0**, Gagel, C. ; **2**, Anthoine, R., 2. *See also* Porto Santo I.
Madeirite, Canary Is.—**2**, Gagel, C., 2.
Madoc (Ont.).—**2**, Anon., 33 ; Wilson, M. E., 2, 3.
Madras Presidency (India.).—**2**, Annandale, N.

Madrepora.—**0**, Oppenheim, P., 7.
Madrid (Spain).—**1**, Obermaier, H.
Maerewhenua R. (N.Z.).—**0**, New Zealand, 4.
Maestrichtian, Cyrenaica.—**2**, Crema, C.
——, Hainault.—**0**, Cornet, J., 2.
Mafungabusi (S. Rhod.).—**1**, Molyneux, A. J. C.
Magadi, L. (Kenya).—**2**, Walther, P.
Magdalen Is. (Queb.).—**0**, Coleman, A. P., 2.
Maggiatal (Tessin).—**0**, Preiswerk, H., 2.
Magmas.—**0**, Clarke, F. W.; Daly, R. A., 2; Simmersbach, B., 2.
——, crystallization.—**0**, Bowen, N. L., 4; Grout, F. F.
——, inclusions in.—**2**, Bowen, N. L., 4.
——, Japan.—**0**, Tsuboi, S.
——, metamorphism &.—**1**, Barrell, J.
——, ore-deposits &.—**1**, Campbell, J. M.; Goodchild, W. H.
——, sulphides in.—**0**, Vogt, J. H. L., 2.
Magmatic differentiation.—**1**, Campbell, J. M.; Vogt, J. H. L., 3; **2**, Foslie, S., 3; Vogt, J. H. L.
Magmatic rocks.—**1**, Eitel, W., 2; **2**, Eitel, W., 4.
Magmatic solutions.—**1**, Niggli, P., 2.
Magnesia.—**1**, Blackshaw, G. N.; Gignoux, M.
Magnesian group, igneous rocks.—**1**, Dixey, F., 2; Tilley, C. E., 3; **2**, Dixey, F., 3; Tilley, C. E., 3.
Magnesian Limestone, Durham.—**1**, Trechmann, C. T., 2.
Magnesite.—**0**, Wyckoff, R. W. G.; **1**, Arlt, H.; Dolman, C. D.; Imperial Mineral Resources Bureau, 8; Leitmeier, H.; **2**, Leitmeir, H., 3.
——, Bohemia.—**0**, Želízko, J. V., 8.
——, Greece.—**2**, Boydell, H. C.
——, Serbia.—**2**, Hammer, W.
——, Silesia.—**2**, Muehlen, L. v. z., 2.
——, S. Rhodesia.—**1**, Zealley, A. E. V., 3.
——, Styria.—**1**, Grosspietsch, O.; Kittl, E., 2; **2**, Ascher, F. H.; Bœhne, E.; Machatschki, F, ; Redlich, K. A., 4.
——, United States.—**0**, United States, 4, 6, 8; **1**, United States, 4, 9; **2**, United States, 11, 13.
——, Victoria.—**2**, Whitelaw, H. S., 2.
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—— ——, Saxony.—**2**, Gœllnitz, O.
—— ——. *See also* Dip needle.
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Magnetite.—**2**, Berz, K. C.; Gruehn, A., 2.
——, Asia Minor.—**2**, Mueller, H.
——, Bihar & Orissa.—**1**, Murray, E. F. O.
——, Carinthia.—**2**, Reitzenstein, W. v.
——, Hesse.—**0**, Schottler, W., 4; **1**, Eitel, W., 5.
——, Meurthe-et-Moselle.—**1**, Cayeux, L., 5.
——, Piedmont.—**2**, Mueller, F. P., 2.
——, United States.—**0**, Grout, F. F., 2; Newland, D. H.; **1**, Bayley, W. S.; Miller, W. J., 2; **2**, Gruner, J. W.; Newland, D. H.
Magoffin Co. (Ky.).—**0**, Browning, I. B.
Mahnesfeld (E. Prussia).—**1**, Tornau, F., 2.
Main valley (Germany).—**0**, Henkel, L.
Maine (France).—**0**, Stouvenot, A.; **2**, Chevallier, A.
Maine (U.S.A.).—**0**, Grover, N. C., 2–5; Katz, F. J., 1, 2; Wandke, A.; **2**, Covert, C. C.; Crosby, I. B.; Grover, N. C., 3; Wandke, A., 1, 2.
Maine-et-Loire (France).—**0**, Bigot, A.; **1**, Carpentier, A., 1, 3; Couffon, O.; Ferronnière, G., 2; **2**, Couffon, O.; Ferronnière, G.
Mainz Basin (Germany).—**0**, Geib, K.; Wenz, W., 1, 2; **1**, Fischer, K., 2; Schuster, W.
Maitai series, New Zealand.—**0**, Morgan, P. G.; Speight, R., 4.
Maitland (N.S.W.).—**1**, Osborne, G. D., 2.
Majella (Abruzzi).—**1**, Sacco, F.
Majorca (Balearic Is.).—**0**, Fallot, P., 1, 2; **1**, Depéret, C.; Fallot, P., 2.
Malachite.—**1**, Liesegang, R. E.; Perrier, C., 3; **2**, Buttgenbach, H.
Malacolite-rock, Styria.—**2**, Stiny, J.
Malacostraca.—**1**, Clarke, J. M., 3. *See also* Isopoda, Phyllocarida, *&c.*
Maladetta (Pyrenees).—**1**, Mengel, O., 3.
Malaga (Spain).—**0**, Orueta, D. de; **1**, Alvarado, A. de; Rubio, E.
Malagash (N.S.).—**0**, Cole, L. H., 3; **1**, Hayes, A. O.
Malahide (Dublin).—**1**, Smyth, L. B.
Malakastra (Albania).—**2**, Nowak, E., 6.
Malaya.—**2**, Lang, R.; Romang, M.
——, mineral resources.—**1**, Low, V. F. S.; Scrivenor, J. B., 2; **2**, Morgenthaler, H.; Schreiber, F., 2; Simmersbach, B., 11.
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Maleic anhydride. — **2**, Muegge, O., 2.
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Mallet, R., seismology &.—**1**, Davison, C., 2.
Mallorytown (Ont.).—**2**, Wright, J. F.
Malmédy (E. Belgium).—**1**, Asselberghs, E., 4; Renier, A., 2; **2**, Asselberghs, E., 4.
Malmédy conglomerate, Belgium.—**1**, Renier, A., 2.
Malonne (Namur). — **2**, Kaisin, F., 2.
Malta.—**0**, Bate, D. M. A.
Maltern (Lr. Austria).—**0**, Hinterlechner, K., 4.
Malvern Hills.—**0**, Gray, J. W.; **1**, Barnes, W. H.; Bennett, A.; **2**, Bennett, A.
Malzieu (Lozère).—**2**, Glangeaud, P., 3.
Mammalia.—**1**, Abel, O.; Osborn, H. F.; **2**, Carter, J. T.; Lebzelter, V.; Osborn, H. F., 8; Pieragnoli, L.
——, Cretaceous-Tertiary boundary &.—**1**, Matthew, W. D., 2.
——, Eocene.—**0**, Teilhard de Chardin, P.; **1**, Matthew, W. D.; **2**, Teilhard de Chardin, P.
——, Miocene.—**0**, Das Gupta, H. C., 2; Fourtau, R., 2; **2**, Schlosser, M., 3.
——, Neolithic.—**1**, Rutot, A., 6.
——, Oligocene.—**0**, Troxell, E. L., 4; **1**, Blayac, J., 3; Repelin, J., 2; **2**, Troxell, E. L., 6.
——, Palæogene.—**0**, Sinclair, W. J.
——, Pampean formation.—**1**, Ameghino, F., 2, 10, 11.
——, Pleistocene.—**0**, Dawkins, W. B.; Frenguelli, J., 4; Hay, O. P.; Sœrgel, W., 5; Želízko, J. V.; **1**, Ameghino, F., 4; Anon., 2; Haupt, O.; Latorre, A. C.; Leighton, M. M.; Schrœder, H., 7; Stoller, J., 7; **2**, Frick, C.; Hay, O. P., 1, 2; Osborn, H. F., 7.
——, Pliocene.—**0**, Frenguelli, J., 4; **1**, Branca, W.; Kormos, T., 5; **2**, Ameghino, F.; Frick, C.; Mayet, L.; Osborn, H. F., 7; Simionescu, I., 2.
——, Pontian.—**2**, Teilhard de Chardin, P., 2.
——, post-Glacial.—**0**, Moir, J. R., 2.
——, Quaternary.—**0**, Dubois, G.; Fabiani, R., 3; **1**, Ameghino, F., 1, 9; Branca, W.; Frenguelli, J., 2; Kormos, T., 2; Nordmann, V.; Studer, T., 2, 3.
——, Tertiary.—**0**, Dawkins, W. B.; Dollfus, G. F., 9; Frenguelli, J., 2; **1**, Repelin, J.
——, American Museum of Natural History.—**1**, Osborn, H. F., 5.
——, Australia (S.E.).—**1**, Walcott, R. H.
Mammalia, cave-remains.—**0**, Drevermann, F.; Ussher, R. J.; **1**, Gidley, J. W.; Kadić, O., 4; Kormos, T., 6; Labrie, —; **2**, Abel, O., 1, 2; Dubois, A.; Guillarmod, J. J.; Miller, A. M.; Miller, G. S., *fil*; Wettstein-Westersheim, O.
——, Egypt.—**0**, Stromer, E., 2.
——, evolution.—**0**, Berry, E. W., 7; **2**, Gregory, W. K.
——, French Indo-China.—**0**, Mansuy, H., 2.
——, S. America.—**1**, Ameghino, F., 13; Torcelli, A. J.
——, W. Indies.—**0**, Matthew, W. D.
——. *See also* Chiroptera, Marsupialia, *&c.*
Man.—**0**, Rœrdam, K.; Rutot, A.; **2**, Capitan, —; Hill-Tout, C.; Sherlock, R. L.
——, Argentina.—**0**, Frenguelli, J., 4; **1**, Ameghino, F., 1, 3, 5; **2**, Ameghino, F.; Castellanos, A.
——, Devon.—**0**, Lowe, H. J.
——, E. Anglia.—**2**, Osborn, H. F., 7.
——, Europe.—**0**, Dawkins, W. B.
——, France.—**0**, Gorceix, C., 3; Kilian, W., 7; **2**, Hauser, O.
——, Germany.—**0**, Lœffler, K.; **1**, Blanckenhorn, M., 5; Stoller, J., 7.
——, Glamorgan.—**0**, Sollas, W. J.
——, Great Britain.—**0**, Dawkins, W. B.
——, Hainault.—**1**, Rutot, A., 3.
——, Hebrides.—**0**, Bishop, A. H.
——, Kenya.—**2**, Gregory, J. W.
——, Neuchâtel L. area.—**0**, Musy, M.; **2**, Pittard, E.
——, Norfolk.—**1**, Layard, N. F.
——, N. America.—**1**, Ameghino, F., 10, 11; **2**, Ameghino, F.
——, N. Rhodesia.—**1**, Woodward, A. S., 5; **2**, Brinkmann, A.; Guillarmod, J. J., 2.
——, Norway.—**1**, Shetelig, H.
——, S. America.—**1**, Ameghino, F., 10, 11; **2**, Ameghino, F.
——, S. Australia.—**0**, Howchin, W., 9; White, S. A.
——, Suffolk.—**0**, Moir, J. R., 2; **1**, Moir, J. R., 3.
——, Sussex.—**0**, Ramstrœm, M.
——, Tanganyika.—**0**, Werth, E., 2.
——, Venetia.—**0**, Pellegrini, G.
——, American Museum of Natural History—**1**, Osborn, H. F., 5.
——, antiquity.—**2**, Osborn, H. F., 10.
——, British Museum (N.H.).—**2**, British Museum, 4.
——, dentition. — **2**, Giuffrida-Ruggeri, V.
——, evolution & origin.—**1**, Abel, O., 3; Dorlodot, H. de; Sera, G. L.
——, geographical distribution.—**1**, Childe, A.; **2**, Montandon, R.
——, Ice Age &.—**2**, Anon., 31; Kendall, P. F., 3.

Man, Loess.—**0**, Sœrgel, W., 5.
——, migration.—**2**, Murgoci, G., 8.
——, skull.—**0**, Spokes, S. ; **2**, Sollas, W. J.
——, text-book on.—**1**, Boule, M. ; **2**, Werth, E.
——. *See also* Art, Megaliths, *&c.*
Manapouri, L. area (N.Z.).—**2**, Fowler, J. M.
Manche (France).—**0**, Fraipont, C., 2 ; **2**, Azam, A., 2.
Manchester area.—**0**, March, M. C.
Manchuria.—**2**, Murakami, H.
Mandingue plateau (Fr. W. Afr.).—**0**, Chudeau, R.
Mandya (Mysore).—**0**, Balaji Rao, B., 2.
Mangahao R. (N.Z.).—**1**, Adkin, G. L.
Manganese.—**0**, Emmons, W. H. ; Hewett, D. F. ; **1**, Anon., 8 ; Brown, J. C.
——, Belgium.—**0**, Krusch, P.
——, Brazil.—**2**, Krusch, P., 4 ; Simmersbach, B., 10.
——, British Columbia.—**0**, Mackenzie, G. C.
——, Bulgaria.—**1**, Schmid, G.
——, Canada.—**0**, Mackenzie, G. C., 2.
——, Costa Rica.—**0**, Sears, J. D.
——, Cuba.—**1**, Burchard, E. F.
——, Ecuador.—**0**, Anon., 24.
——, Germany.—**2**, Ahlburg, J. ; Beyschlag, F., 7 ; Pohl, H.
——, Graubünden.—**2**, Arbenz, P. ; Mueller, F. P., 3.
——, Huelva.—**2**, Pilz, R.
——, India.—**2**, Hezner, L., 2.
——, New Brunswick.—**0**, Gwillim, J. C., 2 ; Uglow, W. L., 1, 2.
——, New Zealand.—**0**, Morgan, P. G., 2.
——, Norway.—**0**, Vogt, J. H. L.
——, Nova Scotia.—**0**, Gwillim, J. C., 2 ; Uglow, W. L., 3.
——, Panama.—**0**, Sears, J. D.
——, Paraguay.—**1**, Beder, R.
——, Romania.—**1**, Mogilnicki, R. v.; Rozlozsnik, P., 5 ; **2**, Pascu, R., 4.
——, Russia.—**0**, Rundall, W. H. ; **2**, Chlebnikow, K. C. ; Krusch, P., 4.
——, S. Australia.—**0**, Winton, L. J., 4.
——, Sweden.—**2**, Naumann, E.
——, United States. — **0**, Hewett, D. F., 5 ; Jones, E. L., *fil*, 2–6 ; Louderback, G. D., 2 ; Miser, H. D., 1, 3 ; Pardee, J. T., 5–7 ; **1**, Harder, E. C., 2 ; Miser, H. D. ; **2**, Hewett, D. F. ; Pardee, J. T.
——, Victoria.—**2**, Kenny, J. P. L., 6.
——, W. Australia.—**0**, Blatchford, T. ; **1**, Montgomery, A. ; **2**, Wilson, R. C., 2.
——, world's production.—**0**, United States, 5, 6, 8 ; **1**, Imperial Mineral Resources Bureau, 17 ; United States, 8 ; **2**, United States, 10, 12.
Manganese sulphates.—**0**, Larsen, E. S.
Manganite.—**2**, Muegge, O., 15.
Manganotantalite.—**0**, Lee, O. I.
Mangerite, Norway.—**2**, Goldschmidt, V. M., 6.
Mangonui (N.Z.).—**2**, Ferrar, H. T.
Manhartsberg (Lr. Austria). — **0**, Vetters, H.
Manhattan (Nev.).—**0** & **1**, Ferguson, H. G., 2.
Manipa I. (D.E.I.).—**1**, Braake, A. L. ter.
Manitoba.—**0**, Alcock, F. J., 2 ; Bruce, E. L., 2 ; Dowling, D. B. ; **1**, Alcock, F. J., 6 ; Clark, K. A. ; Dowling, D. B., 5.
——, ore-deposits.—**0**, Anon., 19 ; Bruce, E. L., 1, 3 ; Hanson, G. ; **1**, Alcock, F. J., 7 ; McCann, W. S.; Wallace, R. C. ; **2**, Gordon, J. P.
——, Pre-Cambrian.—**1**, Alcock, F. J., 1–3, 8 ; **2**, Bruce, E. L. ; Cooke, H. C., 2.
——, Quaternary.—**0**, Johnston, W. A. ; **1**, Alcock, F. J., 4 ; **2**, Johnston, W. A., 2.
Manitoulin I. (Ont.).—**2**, Williams, M. Y., 2.
Manjak.—**1**, Emtage, R.
Mansfeld (Prussia).—**1**, Beyschlag, F., 4 ; **2**, Kling, P. ; Schneiderhœhn, H., 2.
Mansjö Mt. (Sweden).—**1** & **2**, Eckermann, H. v.
Manzano group, New Mexico. — **0**, Lee, W. T., 3.
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——, plane-table.—**0**, Palmer, H. S., 2.

MAPS

[The following list contains only those maps published in papers the titles of which appear in the Author Lists for 1920–22. Details of the separately published maps received in each of those years will be found at the end of the appropriate Author List.]

AFRICA, West. Gambia, Niger R., & L. Chad area ; 1 : 5,000,000. **1**, Hubert, H., 2.
ALASKA. Anvik - Andreafski & Marshall areas ; 1 : 250,000 & 1 : 125,000. **0**, Harrington, G. L., 2.
——. Canning R. area ; 1 : 250,000. **0**, Leffingwell, E. de K.
——. Chitina valley ; 1 : 250,000. **1**, Moffit, F. H.
——. Clark L. & Kuskokwin R. area ; 1 : 250,000. **0**, Smith, P. S.
——. Cosna-Nowitna area ; 1 : 250,000. **0**, Eakin, H. M., 4.

ALASKA. Goodnews Bay area; 1 : 250,000. **2**, Harrington, G. L.

——. Kantishna area; 1 : 250,000. **0**, Capps, S. R., 4.

——. Koyukuk R.-Yukon R. area; 1 : 500,000. **1**, Eakin, H. M.

——. Nelchina - Susitna area; 1 : 250,000. **0**, Chapin, T., 3.

——, parts of; various scales. **1**, Martin, G. C.

ALBANIA. Malakastra area; 1 : 100,000. **2**, Nowak, E., 6.

ALGERIA. Constantine. Seybouse R. area; 1 : 300,000. **1**, Blayac, J.

ASIA MINOR, 1 : 4,000,000. **0**, Frech, F., 2.

AUSTRIA. Lower Austria. Aspang area; 1 : 50,000. **1**, Mohr, H.

——. ——. Mödling & Triestingbach area; 1 : 100,000 & 1 : 25,000. **1**, Spitz, A.

——. ——. Retz area; 1 : 25,000. **0**, Vetters, H., 2.

——. ——. Wienerwald area; 1 : 75,000. **2**, Friedl, K.

——. Salzburg. Tennen Gebirge; 1 : 50,000. **0**, Fugger, E.

——. Styria. Friedberg area; 1 : 50,000. **1**, Mohr, H.

——. Tyrol. Mühlau area; 1 : 30,000. **1**, Penck, A., 4.

——. ——. Prutz & Stubental areas; 1 : 25,000. **0**, Hammer, W., 5.

——. Upper Austria. Hallstatt & Plassen area; 1 : 25,000. **0**, Spengler, E., 3.

BELGIUM, central; 1 : 160,000. **1**, Fourmarier, P.

——. Hainault. Acoz & Binche area; 1 : 40,000. **0**, Anthoine, R.

——. Luxembourg, southern; 1 : 160,000 & 1 : 300,000. **1**, Asselberghs, E.

BRAZIL. 1 : 5,000,000.—**0**, Branner, J. C.

CANADA. Alberta. Ribstone valley; 1 inch = 3 miles. **1**, Dowling, D. B.

——. ——. Sheep R. area; 1 : 62,500. **1**, Slipper, S. E.

——. British Columbia. Ainsworth area; 1 : 24,000. **0**, Schofield, S. J.

——. ——. East Sooke area; 1 : 24,000. **0**, Cooke, H. C.

——. ——. North Thompson valley area; 1 inch = 2 miles. **2**, Uglow, W. L.

——. ——. Taseko R. area; 1 : 36,000. **1**, Mackenzie, J. D.

——. Manitoba. Ospwagan L. & Burntwood R. area; 1 inch = 2 miles. **1**, Alcock, F. J., 2.

——. ——. Reed L. & Wekusko L. area; 1 : 126,720. **1**, Alcock, F. J.

——. Nova Scotia. Malagash area; 1 inch = 0·5 mile. **1**, Hayes, A. O.

CANADA. Ontario. Algoma area; 1 inch = 1 mile. **2**, Brunton, S., 3.

——. ——. Cornwall & Morrisburg area; 1 inch = 1 mile. **2**, Keele, J., 2.

——. ——. Gowganda area; 1 inch = 1 mile. **2**, Burrows, A. G.

——. ——. Kenogami L. & Round L. area; 1 inch = 1 mile. **2**, Cooke, H. C.

——. ——. Matachewan area; 1 : 63,360. **0**, Cooke, H. C., 2.

——. Ontario. Wanapitei L. area; 1 inch = 1 mile. **2**, Quirke, T. T., 2.

——. Quebec. Beauceville area; 1 : 48,000. **2**, Mackay, B. R.

——. ——. Valleyfield area; 1 inch = 1 mile. **2**, Keele, J., 2.

——. Yukon. Keno Hill area of Mayo district; 1 : 24,000. **1**, Cockfield, W. E., 2.

——. ——. Ladue R. & Sixtymile R. area; 1 inch = 4 miles. **1**, Cockfield, W. E.

CHINA. Manchuria. An-shan area; 1 : 100,000. **2**, Murakami, H.

——. Yunnan. Tali Fu & Yunnan Fu area; 1 inch = 4 miles. **2**, Brown, J. C.

——. ——, parts of western; 1 inch = 16 miles. **0**, Brown, J. C., 2.

CONGO BELGE. Katanga, eastern part of; 1 : 1,000,000. **1**, Gross, E.

CZECHOSLOVAKIA. Bohemia. Gartitz & Tellnitz area; 1 : 25,000. **2**, Seemann, F.

——. ——. Hřebeny Mts. area; 1 : 50,000. **2**, Kettner, R., 5.

——. ——. Liteň area; 1 : 25,000. **2**, Kodym, O.

——. Moravia. Spieglitz area; 1 : 100,000. **0**, Kretschmer, F.

DUTCH EAST INDIES. Billiton. 1 : 1,000,000. **2**, Van Es, L. J. C.

——. Borneo (Dutch). Matan & Sampit area; 1 : 1,000,000. **1**, Frijling, H.

——. ——. Sanga Sanga area; 1 : 15,000. **2**, Jezler, H.

——. ——. South and East Divisions; 1 : 100,000. **1**, Krol, L. H.

——. ——. West Division; 1 : 500,000. **1**, Loth, J. E.

——. ——, western; 1 : 1,000,000. **2**, Van Es, L. J. C.

——. Celebes, parts of central; 1 : 100,000 & 1 : 750,000.—**0**, Abendanon, E. C.

——. ——. Toradja land; 1 : 300,000. **1**, Reijzer, J.

——. Sumatra. Atjeh area; 1 : 100,000. **0**, Oppenoorth, W. F. F., 2.

——. ——. Kendi-Ringen area; 1 : 25,000. **2**, Ziegler, K. G. J.

DUTCH EAST INDIES. Sumatra. Lematang R. area ; 1 : 100,000. **2**, Hartmann, E.

——. ——. Tandjoeng area ; 1 : 30,000. **2**, Mannhardt, F. G.

——. ——. Toba L. area ; 1 : 200,000. **0**, Klein, W. C.

EGYPT. Abu Shaar el Qibli area ; 1 : 25,000 & 1 : 10,000. **1**, Madgwick, T. G

——. Quseir-Safaga area ; 1 : 10,000. **0**, Hume, W. F., 4.

——. Ras Dib area ; 1 : 10,000. **0**, Madgwick, T. G.

——. South Zeit area ; 1 : 10,000. **0**, Hume, W. F., 5.

——. Sinai. Abu Durba area ; 1 : 2,500. **1**, Hume, W. F., 6.

——. ——. Gebel Nezzazat area ; 1 : 2,500. **0**, Hume, W. F., 2.

——. ——. Gebel Tanka area ; 1 : 10,000. **0**, Hume, W. F., 3.

——. ——, north-western ; 1 : 250,000. **2**, Moon, F. W.

FEDERATED MALAY STATES. Kinta area ; 1 : 95,040. **1**, Scrivenor, J. B., 4.

——. Negri Sembilan & south Selangor ; 1 inch = 4 miles. **2**, Willbourn, E. S.

——. Ulu Pahang area ; 1 inch = 8 miles. **1**, Scrivenor, J. B., 3.

FINLAND. Joensuu area ; 1 : 400,000. **1**, Frosterus, B., 3.

——. Nurmes area ; 1 : 400,000. **1**, Wilkman, W. W.

——. Œsterbotten area ; 1 : 800,000. **0**, Mækinen, E.

——. Salmi & Suojärvi area ; 1 : 400,000. **1**, Berghell, H.

FRANCE. Pas-de-Calais. Ferques area ; 1 : 20,275. **1**, Robinson, J. W. D.

FRENCH - INDO - CHINA, north-eastern ; 1 : 1,500,000. **2**, Jacob, C.

——. Annam. Thanh Hoa area ; 1 : 250,000. **2**, Jacob, C.

——. Laos. Luang Prabang area ; no scale. **0**, Dussault, —.

——. ——. Sam Neua area ; 1 : 200,000. **2**, Dussault, L.

——. Tongking. Hanoi & Hoa Binh area ; 1 : 250,000. **2**, Jacob, C.

GERMANY. Baden. Kandern & Lörrach area ; 1 : 25,000. **2**, Wilser, J. L.

——. Hesse. Frankenberg & Kirchhain area ; 1 : 100,000. **1**, Dienemann, W.

——. Hesse-Nassau. Limberg-Marburg area ; 1 : 200,000. **1**, Ahlburg, J., 4.

——. ——. Rimberg area ; : 25,000. **1**, Lieber, H.

——. Lippe, Northern ; 1 : 100,000. **1**, Naumann, E., 11

——. Prussia. Hüggel & Schafberg area ; 1 : 50,000. **1**, Kuhlmann, L.

——. ——. Schneidemühl & Arnswalde area of ; 1 : 300,000. **1**, Korn, J., 4.

——. Rheinland. Sötenich area ; 1 : 40,000. **1**, Quiring, H.

——. Silesia. Frankenstein & Neisse area ; 1 : 200,000. **1**, Friedensburg, F.

——. Thuringia. Schmalkalden & Steinbach-Hallenberg area ; 1 : 25,000. **1**, Bœhne, E.

GREAT BRITAIN. Channel Is. Jersey ; 1 inch = 1 mile. **1**, Plymen, G. H., 2.

——. England & Wales. Drift deposits of ; 1 inch = 27 miles. **0**, Lamplugh, G. W., 3.

——. ——. Carnarvonshire. Capel Curig area ; 1 : 21,120. **2**, Williams, H.

——. ——. Denbighshire. Llangollen area ; 1 inch = 1 mile. **2**, Wills, L. J.

——. ——. Devon. Meldon area ; 6 inches = 1 mile. **0**, Worth, R. H.

——. ——. Glamorgan. Lavernock area ; 6 inches = 1 mile. **0**, Trueman, A. E., 2.

——. ——. Gloucestershire. May Hill area ; 2 inches = 1 mile. **1**, Gardiner, C. I.

——. ——. Humber basin ; 1 inch = 5 miles. **2**, Newton, C. B.

——. ——. Lake District. 1 inch = 4 miles. **0**, Green, J. F. N.

——. ——. Merioneth. Arthog & Dolgelley area ; 1 : 21,120. **1**, Cox, A. H.

——. ——. ——. Area south-east of Bala L. ; 1 : 15,840. **2**, Elles, G. L., 5.

——. ——. Shropshire. Bucknell area ; 1 : 31,680. **1**, Stamp, L. D.

——. Scotland. Argyll. Iona I. ; 1 inch = 0·5 mile. **2**, Jehu, T. J.

——. ——. Edinburgh. Arthur's Seat ; 1 : 10,500 (approx.). **1**, Peach, B. N.

GREENLAND, north-western ; 1 : 2,500,000. **1**, Koch, L.

HOLLAND, southern ; 1 : 500,000. **1**, Keilhack, K., 4.

INDIA. Bihar & Orissa. 1 : 1,000,000. **2**, Fermor, L. L.

——. ——. Singhbhum area ; 1 inch = 8 miles. **0**, Fermor, L. L.

——. Bombay Presidency. Idar State ; 1 inch = 4 miles. **1**, Middlemiss, C. S.

——. Central Provinces. Jubbulpore area ; 8 inches = 1 mile. **2**, Matley, C. A.

——. Mysore. Shimoga area ; 1 inch = 2 miles. **0**, Iyengar, P. S.

INDIA. Mysore. Voblapur area; 1 inch = 1 mile. **0**, Jaya Ram, B.

——. North-West Frontier Province, parts of; various scales. **1**, Pascoe, E. H.

——. Punjab, parts of; various scales.—**1**, Pascoe, E. H.

IRAQ. Kirkuk & Mosul areas; 1 inch = 1 mile & 1 inch = 2 miles. **2**, Pascoe, E. H.

ITALY. Lombardy. Val d'Intelvi & Val Menaggio area; 1 : 100,000. **1**, Repossi, E.

——. ——. Monte Misma area; 1 : 25,000. **1**, Alessandri, G. de, 3.

——. Piedmont. Alessandria area; 1 : 100,000. **0**, Sacco, F., 10.

——. ——. Tanaro R. area; 1 : 100,000. **0**, Sacco, F., 12; **1**, Sacco, F., 4.

——. Trentino. Monte Pasubio area; 1 : 25,000. **2**, Fabiani, R., 5.

——. Venetia. Monte Bolca area; 1 : 10,000. **2**, Fabiani, R., 2.

——. ——. Lessini Mts. area; various scales. **0**, Fabiani, R.

——. ——, northern; 1 : 500,000. **0**, Stefanini, G.

——. ——. Posina-Schio area; 1 : 25,000. **2**, Fabiani, R., 5.

MEXICO. Lower California, southern; 1 : 2,200,000. **1**, Bustamante, M.

——. Sonora. Guaymas & Hermosillo area; 1 : 670,000 (approx.). **2**, Beal, C. H.

MOROCCO (SPANISH). Beni-Said area; 1 : 100,000. **1**, Valle, A. del, 2.

——. Kert R. area; 1 : 100,000. **1**, Valle, A. del.

——, north-western; 1 : 100,000. **1**, Lôme, E. D. de.

NEW GUINEA. Papua. Owen Stanley Range area; 1 inch = 4 miles. **0**, Stanley, E. R.

NEW ZEALAND. Hawke's Bay. Gisborne & Whatatutu area; 1 : 63,360. **1**, Henderson, J., 5.

——. Southland, western; 1 inch = 6 miles (approx.). **2**, Park, J.

NIGERIA. Bukuru area; 1 inch = 2 miles. **1**, Falconer, J. D.

——. Iddo & Okuku area; 1 : 250,000. **2**, Wilson, R. C., 4.

NORWAY. Dunderland area; 1 : 100,000. **1**, Oxaal, J.

——. Kongsberg area; 1 : 60,000 & 1 : 10,000. **1**, Bugge, C.

——. Stavanger area; 1 : 100,000. **2**, Goldschmidt, V. M., 10.

——. Tysfjord area; 1 : 200,000. **1**, Rekstad, J.

PERSIA, eastern; 1 inch = 8 miles & 1 inch = 48 miles. **1**, Tipper, G. H.

QUEENSLAND, north-western; 1 inch = 32 miles. **0**, Dunstan, B.

RHODESIA. Southern. Somabula area; 1 : 119,000. **1**, Macgregor, A. M.

ROMANIA. Dobrogea. Greci area; 1 : 50,000. **2**, Rotman, D., 2.

——. ——. Turcoaia area; 1 : 40,000 & 1 : 20,000. **2**, Cantuniari, S., 3.

——. Moldavia. Bacău & Bahnăseni area; 1 : 100,000. **2**, Grozescu, H., 5.

——. ——. Bacău & Târgu-Ocna area; 1 : 100,000. **2**, Preda, D. M., 5.

——. ——. Iasi area; 1 : 100,000. **2**, Sevastos, R., 3.

——. Oltenia. 1 : 500,000. **2**, Ionescu-Argetoaia, I., 9.

——. Transylvania. Nagysink area; 1 : 200,000. **1**, Halaváts, G. v., 3.

——. Wallachia. Brezoi area; 1 : 100,000. **2**, Popescu-Voiteşti, I., 7.

RUSSIA. Perm. Nicolai-Pawda area; 1 : 50,000. **0**, Duparc, L., 3.

SOUTH AFRICA. South-West Africa. Tsumeb area; 1 : 50,000. **2**, Schneiderhœhn, H.

——. Transvaal. Crocodile R. area; 1 inch = 2·3 miles. **2**, Wagner, P. A.

——. ——. Selati R. area; 1 inch = 2.3 miles (approx.). **1**, Hall, A. L.

SPAIN. Cordoba. Adamuz & Ovejo area; 1 : 50,000. **1**, Carbonell, A.

——. Galicia. 1 : 400,000. **2**, Sampelayo, P. H.

——. Guadalajara. Tamajón & Valdesotos area; 1 : 50,000. **1**, Pérez-Cossio, L.

——. Navarra. 1 : 400,000. **0**, Palacios, P.

——. Teruel. Rubielos de Mora area; 1 : 50,000. **1**, Gavala, J.

SWEDEN. Åtvidaberg area; 1 : 50,000. **2**, Sundius, N., 2.

——. Gotland. 1 : 150,000. **1**, Hede, J. E.

——. Jåmtland. 1 : 800,000. **1**, Hœgbom, A. G.

——. ——. Kallsjö area; 1 : 200,000. **2**, Frœdin, G.

——. Västerdal area; 1 : 300,000. **0**, Olivecrona, H.

SWITZERLAND, south-eastern; 1 : 250,000. **0**, Staub, R.

——. Aargau. Frick area; 1 : 25,000. **1**, Braun, L.

——. Berne. Gondiswil area; 1 : 25,000. **1**, Gerber, E., 6.

——. ——. Rohrberg area; 1 : 25,000. **2**, Keller, W. T.

——. Engadin. Schuls-Scanfs-Stilfserjoch area; 1 : 50,000. **0**, Spitz, A., 10.

SWITZERLAND. Fribourg. Moléson area; 1 : 25,000. **2**, Mauve, C. C.

——. Lucerne. Schafmatt & Schimberg area; 1 : 25,000. **2**, Mollet, H.

——. ——. Zell area; 1 : 25,000. **1**, Gerber, E., 6.

——. Solothurn. Bärschwil area; 1 : 25,000. **2**, Keller, W. T.

——. Tessin. Lepontine Alps area; 1 : 50,000. **0**, Preiswerk, H.

——. Valais. Lonza R. & Massa R. area; 1 : 50,000. **1**, Swiderski, B.

——. Vaud. Dôle area; 1 : 25,000. **0**, Lagotala, H.

——. ——. Vallorbe area; 1:25,000. **2**, Nolthenius, A. B. T.

TASMANIA. Bridgewater-Jericho-Richmond area; 1 inch = 1.3 miles (approx.). **2**, Nye, P. B.

——. Midlands area; 1 inch = 1.3 miles & 1 inch = 1 mile. **1**, Nye, P. B.

TIBET. Arun R. area; 1 inch = 8 miles. **2**, Heron, A. M.

TUNIS. Djebel Hameima & Djebel Slata area; 1 : 50,000. **2**, Fourmarier, P., 8.

UNITED STATES. Alabama. Talladega area; 1 inch = 2 miles. **1**, Prouty, W. F.

——. Arizona. Lower Gila R. area; 1 : 500,000. **2**, Ross, C. P.

——. ——. Miami & Ray areas; 1 : 12,000. **0**, Ransome, F. L.

——. ——. Navajo area; 1 : 500,000. **0**, Gregory, H. E., 1, 2.

——. ——. Papago area; 1 : 500,000. **2**, Bryan, K., 2.

——. Arkansas. Batesville area; 1 : 62,500. **1**, Miser, H. D.

——. ——. Eureka Springs & Harrison area; 1 : 125,000. **0**, Purdue, A. H.

——. California. Inyo Range & Sierra Nevada; 1 : 125,000. **0**, Knopf, A., 4.

——. ——. Kern Co.; 1 : 125,000. **1**, English, W. A.

——. ——. San Diego Co.; 1 : 250,000. **0**, Ellis, A. J., 2.

——. ——. Sunset-Midway area; 1 : 125, 000. **0**, Pack, R. W.

——. Colorado. Central City & Idaho Springs areas; 1 : 62,500 & 1 : 12,000. **0**, Bastin, E. S.

——. ——. Colorado Springs area; 1 : 125,000. **0**, Finlay, G. I.

——. Connecticut. Glastonbury, Norwalk & Suffield areas; 1 : 62,500. **1**, Palmer, H. S.

——. ——. Granby-Southington area; 1 : 62,500. **1**, Palmer, H. S., 2.

——. Delaware. Wilmington area; 1 : 62,500. **1**, Bascom, F., 2.

UNITED STATES. Idaho. Fort Hall Indian Reservation; 1 : 125,000. **1**, Mansfield, G. R.

——. ——. Mackay area; 1 : 375,000. **1**, Umpleby, J. B.

——. Illinois. Colchester & Macomb area; 1 : 62,500. **0**, Hinds, H.

——. ——. Edgington & Milan area; 1 : 62,500. **2**, Savage, T. E., 2.

——. ——. Galena & Elizabeth area; 1 : 62,500. **0**, Shaw, E. W., 5.

——. ——. Good Hope & La Harpe area; 1 : 62,500. **2**, Savage, T. E.

——. ——. Hennepin & La Salle area; 1 : 62,500. **0**, Cady, G. H.

——. ——. New Athens & Okawville area; 1 : 62,500. **2**, Shaw, W. E.

——. Kansas. Lakin & Syracuse area; 1 : 125,000. **1**, Darton, N. H.

——. ——. Leavenworth area; 1 : 62,500. **0**, Hinds, H., 3.

——. Kentucky. Jefferson county; 1 : 62,500. **0**, Butts, C.

——. Maryland. Elkton area; 1 : 62,500. **1**, Bascom, F., 2.

——. ——. Tolchester Beach area; 1 : 125,000. **0**, Miller, B. L., 3.

——. Massachusetts. 1 : 250,000. **0**, Emerson, B. K.

——. ——. Essex Co.; 1 : 250,000 & 1 : 62,500. **1**, Clapp, C. H.

——. Michigan. Detroit area; 1 : 62,500. **0**, Sherzer, W. H.

——. Minnesota. Morris area; 1 : 62,500. **0**, Sardeson, F. W.

——. —— southern; 1 : 500,000. **0**, Leverett, F.

——. Missouri. Smithville area; 1 : 62,500. **0**, Hinds, H., 3.

——. Montana. Birch Creek & Sun R. area; 1 : 125,000. **0**, Stebinger, E., 2.

——. ——. Bull Mountain area; 1 : 125,000. **0**, Woolsey, L. H.

——. ——. Huntley area; 1 : 125,000. **0**, Hancock, E. T., 2.

——. ——. Lake Basin area; 1 : 125,000. **0**, Hancock, E. T.

——. ——. Musselshell valley; 1 : 125,000. **0**, Bowen, C. F., 2.

——. Nevada. Ely area; 1 : 30,000. **0**, Spencer, A. C.

——. ——. Yerington area; 1 : 24,000. **0**, Knopf, A., 5.

——. New Mexico. Alamosa Creek valley; 1 : 125,000. **0**, Winchester, D. E., 3.

——. ——. Deming area; 1 : 125,000. **0**, Darton, N. H., 2.

——. ——. Mogollon area; 1 : 24,000. **1**, Ferguson, H. G.

——. ——. Navajo country; 1 : 500,000. **0**, Gregory, H. E., 1, 2.

UNITED STATES. New Mexico. San Juan Co.; 1 inch = 1 mile. **1**, Bauer, C. M., 2.
——. New York. Canton area; 1 : 62,500. **0**, Chadwick, G. H., 6.
——. ——. Cohoes area; 1 : 62,500. **0**, Stoller, J. H., 2.
——. ——. Lake Placid area; 1 : 62,500. **0**, Miller, W. J.
——. ——. Mount Marcy area; 1 : 62,500. **2**, Kemp, J. F.
——. ——. Schroon L. area; 1 : 62,500. **0**, Miller, W. J., 2.
——. ——. West Point area; 1 : 62,500. **2**, Berkey, C. P.
——. Ohio. Camp Sherman area; 1 : 62,500. **2**, Hyde, J. E.
——. ——. Wayne county; 1 : 62,500. **2**, Conrey, G. W.
——. Rhode Island. 1 : 250,000. **0**, Emerson, B. K.
——. South Dakota. Newell area; 1 : 125,000. **0**, Darton, N. H., 4.
——. Utah. 1 inch = 12 miles. **0**, Butler, B. S.
——. ——. Navajo country; 1 : 500,000. **0**, Gregory, H. E., 1, 2.
——. ——. Tintic area; 1 : 62,500 & 1 : 9,600. **0**, Lindgren, W., 5.
——. ——. Uinta Mts.; 1 : 500,000. **0**, Schultz, A. R., 2.
——. Washington. Colville Reservation; 1 : 250,000. **0**, Pardee, J. T., 4.
——. Wisconsin, south-eastern; 1 : 250,000. **0**, Alden, W. C.
——. Wyoming. Rock Springs area; 1 : 250,000. **1**, Schultz, A. R.
VENEZUELA. 1 : 2,000,000. **1**, Jahn, A.
VICTORIA. Corner Inlet & Latrobe valley areas; 1 inch = 1 mile. **2**, Hermann, H., 3.
WEST INDIES. Porto Rico. Ponce area; 1 : 50,000. **2**, Mitchell, G. J.
WESTERN AUSTRALIA, north-central; 1 inch = 12 miles. **1**, Talbot, H. W. B.
YUGOSLAVIA. Dalmatia. Mezzo, Calamotta, & Scoglio S. Andrea Is.; 1 : 25,000. **0**, Bukowski, G. v.

Maps, Central Europe.—**1**, Pitter, T., 1, 2.
——, evolution of.—**1**, Sheppard, T., 3, 4.
——, geological.—**0**, Dwerryhouse, A. R.; **2**, Elles, G. L.; Meyer, H. L. F., 6.
——, ——, Algeria.—**0**, Ficheur, E.
——, ——, France.—**0**, Bigot, A.
——, ——, reading of.—**1**, Harker, A., 2.
——, ——, stereoscope &.—**2**, Hubert, H.
——, ——, stratigraphy in. — **1**, Evans, J. W.
Maps, geological, world.—**2**, Margerie, E. de.
——, hydrogeological, France. — **1**, Charpiat, R., 3.
——, scale-reduction of.—**2**, Armstrong, P., 2.
——, soil.—**2**, Stremme, H., 2.
——, tectonic.—**0**, Werveke, L. v., 3.
Maquoketa shale, United States.—**1**, Bradley, J. H., *fil.*
Marakopa R. area (N.Z.).—**2**, Henderson, J., 6.
Marble, Alabama.—**1**, Dale, T. N.; Prouty, W. F.
——, Alaska.—**0**, Chapin, T.; **1**, Burchard, E. F., 3.
——, Argyll.—**2**, Jehu, T. J.
——, French Alps.—**0**, Kilian, W., 4.
——, New Zealand.—**0**, Park, J.
——, Norway.—**1**, Oxaal, J.; Rekstad, J.
——, Queensland. — **0**, Saint-Smith, E. C., 2.
——, S. Africa.—**0**, Du Toit, A. L., 3; Trevor, T. G., 2.
——, S. Australia.—**1**, Ward, L. K., 8; **2**, Ward, L. K., 2.
——, Transylvania.—**1**, Xántus, J.
——, Tuscany.—**0**, Meli, R., 3.
——, Württemberg.—**1**, Berckhemer, F.
——, as a building-stone.—**2**, Elsden, J. V.
——, onyx, Argentina.—**0**, Kantor, M., 3.
Marble Delta (Natal).—**0**, Du Toit, A. L., 3.
Marburg (Hesse).—**2**, Schwantke, A.
Marcasite.—**1**, Tacconi, E., 2.
Marche (Italy).—**0**, Segré, C.; **1**, Brest, E.; Chelussi, I., 7; Oddone, E., 3; Principi, P.; Sangiorgi, D.; **2**, Agamennone, G., 2; Fabiani, R., 3.
Marcy, Mt., area (N.Y.).—**2**, Kemp, J. F.
Marecchia valley (Marche).—**1**, Sangiorgi, D.
Maredsous (Namur).—**2**, Demanet, F.
Maret (Brabant).—**2**, Leriche, M., 5.
Margarite.—**0**, Shannon, E. V., 13; **2**, Shannon, E. V., 6.
Margarodite.—**0**, Shannon, E. V., 13; **2**, Shannon, E. V., 6.
Margeride Mts. (France).—**1**, Glangeaud, P., 3.
Mariager Fjord area (Denmark).—**1**, Madsen, V.
Marico (Transvaal).—**1**, Kynaston, H.; Wagner, P. A., 6.
Marienau (Silesia).—**1**, Behr, J.; Tietze, O.
'Marine bands,' Carboniferous.—**0**, Bisat, W. S., 2.
Marine sedimentation. *See* Sedimentation.
—— sediments. *See* Sediments.
Mariopteris.—**0**, Kessler, P.
Maritime Alps. *See* Alps.

Maritime Province (Siberia).—**2**, Ahnert, E. E., 2 ; Derwies, V. v. ; Goudkoff, P. P., 4 ; Liebus, A.
Markfieldite, Merioneth.—**1**, Cox, A. H.
Markkleeberg (Saxony).—**0**, Werth, E.
Marlborough (N.Z.).—**0**, Thomson, J. A. ; Woods, H. ; **2**, Morgan, P. G., 3, 4 ; **2**, New Zealand, 17 ; Park, J., 2.
Marls, Cheshire.—**0**, Hewitt, W., 2.
——, Denmark.—**1**, Milthers, V., 3–6, 9.
——, Hainault.—**2**, Cornet, J., 4.
——, bituminous, Tyrol.—**2**, Sander, B.
——. *See also* Chalk-marls, Greensand marl, *&c.*
Marlstone ironstone, Leicestershire.—**1**, Richardson, W. A.
Marmara. *See* Sea of Marmara area.
Marmites. *See* Pot-holes.
Marne (France).—**0** & **1**, Denizot, G.
Marne valley (France).—**1**, Denizot, G., 2.
Mars, ‘ igneous sedimentation’ &.—**0**, Guébhard, A. ; **1**, Guébhard, A., 4.
Marsden (Yorks).—**1**, Bisat, W. S., 3.
Marseille area (Bouches-du-Rhône).—**1**, Dollfus, G. F., 2 ; **2**, Denizot, G.
Marshall Is. (Pacific).—**2**, Yabe, H., 3.
Marshes. *See* Salt-marshes.
Marshite.—**2**, Aminov, G., 2.
Marsica (Abruzzi).—**1**, Agamennone, G., 3 ; Cavasino, A.
Marsicano, Mte. (Abruzzi).—**0**, Almagià, R.
Marsupialia.—**0**, Anon., 32 ; **2**, Petronievics, B.
——, Lias-Rhætic.—**2**, Hennig, E., 5.
——, Oligocene.—**2**, Stock, C., 2.
Martigné-Ferchaud (Ille-et-Vilaine).—**1**, Duplessix, E.
Martinique (W. Indies).—**0**, Lemoine, P. ; **1**, Mercalli, G.
Martite, Minnesota.—**2**, Gruner, J. W. ; Newland, D. H.
Martres-d’Artières (Puy-de-Dôme).—**0**, Glangeaud, P., 2.
Maryland (U.S.A.).—**0**, Clark, W. B. ; Little, H. P. ; Miller, B. L., 3 ; **1**, Bascom, F., 2 ; Gidley, J. W. ; **2**, Gordon, S. G. ; Knopf, E. B.
—— (——), chromium. — **0**, Singewald, J. T., *fil* ; **2**, Gordon, S. G., 2 ; Knopf, E. B., 2.
—— (——), Cretaceous.—**0**, Berry, E. W., 8 ; Clark, W. B., 2 ; **2**, Gilmore, C. W., 2.
—— (——), stratigraphy.—**0**, Bassler, R. S. ; Dorsey, G. E. ; Swartz, C. K., 2.
—— (——), water.—**0**, Clark, W. B., 3 ; **2**, Covert, C. C. ; Grover, N. C., 3.
Maryport (Cumberland).—**1**, Smith, B., 2.
Maryut (Egypt).—**1**, Hume, W. F., 5.
Masaya volc. (Nicaragua).—**2**, Sapper, K.
Mashonaland (S. Rhod.).—**0**, Mennell, F. P., 2.
Masino valley (Lombardy).—**1**, Staub, R., 10.
Maskwa R. area (Manit.).—**1**, McCann, W. S.
Massa Marittima (Tuscany). — **2**, Fossa-Mancini, E., 3.
Massa R. area (Valais).—**1**, Swiderski, B.
Massachusetts (U.S.A.).—**0**, Emerson, B. K. ; Raymond, P. E., 2 ; **1**, Loomis, F. B. ; **2**, McCarthy, G. R.
—— (——), igneous & metamorphic rocks.—**1**, Clapp, C. H. ; **2**, Eskola, P., 2 ; Gordon, S. G.
—— (——), minerals.—**1**, McKinstry, H. E. ; Shannon, E. V., 9 ; **2**, Shannon, E. V., 1, 4, 11.
—— (——), Palæozoic.—**0**, Dale, T. N. ; Fœrste, A. F., 7 ; Perkins, E. H.
—— (——), Quaternary.—**0**, Katz, F. J., 2; Morse, E. S. ; Shimer, H. W.
—— (——), water.—**0**, Grover, N. C., 2–5 ; Pierce, C. H., 2 ; **2**, Covert, C. C. ; Grover, N. C., 3.
Massif Central (France).—**0**, Glangeaud, P., 1, 3 ; Launay, L. de ; **1**, Glangeaud, P., 4 ; Mouret, G. ; **2**, Glangeaud, P.
Mastacomys.—**2**, Thomas, O.
Mastodon.—**0**, Osborn, H. F., 2 ; **1**, Osborn, H. F., 4 ; **2**, Athanasiu, S. C., 6 ; Boule, M. ; Brives, A., 4 ; Dietrich, W. O., 6 ; Freudenberg, W., 3 ; Osborn, H. F., 3 ; Stefanescu, S.
Mastodontoidea.—**2**, Osborn, H. F., 4.
Masuren (E. Prussia).—**0**, Harbort, E. ; **1**, Hess von Wichdorff, H., 4.
Matachewan (Ont.).—**0**, Cooke, H. C., 2.
Matterhorn (Alps).—**0**, Sacco, F., 23.
Matto Grosso (Brazil).—**1**, Schiller, W.
Mattstock (St. Gallen).—**0**, Heim, Arnold.
MAUCHER, W., minerals &.—**2**, Stutzer, O.
Maucherite.—**1**, Palmer, C.
Maulenne (Namur).—**1**, Bellière, M., 3.
Maures (Var).—**1**, Zurcher, P.
Maurienne (Savoie).—**0**, Termier, P., 10 ; **2**, Cluzet, J.
Mauritania (Fr. W. Afr.).—**2**, Gruvel, A.
May Hill (Glos).—**1**, Gardiner, C. I., 1, 2.
Mayenne (France).—**1**, Milon, Y. ; **2**, Delépine, G. ; Dollfus, G. F., 6.
Mayo (Yukon).—**0**, Cockfield, W. E., 2 ; **2**, Cockfield, W. E.

Mayumbe (Congo Belge).—**1**, Dorlodot, L. de, 5 ; **2**, Dorlodot, L. de, 3.
Meadfoot beds, Siegenian &.—**1**, Asselberghs, E., 8 ; Hamling, J. G.
Meadow Valley (Nev.).—**1**, Stock, C.
Mechernich (Rheinland).—**1**, Krause, P. G., 2.
Mecklenburg (Germany).—**0**, Wunderlich, E. ; **2**, Geinitz, E., 3 ; Œrtel, W., 2.
Medenau (E. Prussia).—**1**, Tornau F.,
Mediterranean area, man in. — **1**, Childe, A.
—— —— (W.), terraces. — **1**, Lamothe, L. de.
Mediterranean Sea, variations of level.—**2**, Négris, P.
Mediterranean stage, Romania.—**1**, Zalányi, B., 2 ; **2**, Macovei, G., 6 ; Popescu-Voiteşti, I., 5.
Meekatharra (W. Austr.).—**0**, Clarke, E. de C., 8–10.
Meerschaum. *See* Sepiolite.
Meester-Cornelis (Java).—**1**, Van Es, L. J. C.
Megadiastrophism.—**1**, Chamberlin, T. C., 4 ; **2**, Chamberlin, T. C., 3 ; Jones, W. F.
Megaliths, Hyderabad.—**1**, Munn, L.
——, I. of Man.—**1**, Corkill, W. H.
——, Somerset.—**2**, Thompson, W.
——. *See also* Cromlechs.
Megalohyrax.—**2**, Matsumoto, H.
Megalosauridæ.—**1**, Andrews, C. W., 2.
Meganos group, California.—**0**, Clark, B. L., 2 ; **1**, Clark, B. L. ; **2**, Dickerson, R. E., 2.
Meggen (Westphalia).—**1**, Schmidt, W. E. ; **2**, Bergeat, A., 1, 2.
Mehaigne valley (Liége).—**2**, Salée, A.
Mehlis (Thuringia).—**1**, Scheibe, R.
Meidling (Vienna Basin).—**0**, Hackl, O., 8.
Meissen (Saxony).—**0**, Kampfrath, A. ; **2**, Trœger, E.
Melanopsis.—**1**, Halaváts, G. v.
Melanovanadite.—**2**, Lindgren, W., 1, 5.
Melanterite.—**0**, Larsen, E. S.
Melaphyre, Germany.—**1**, Haase, E. ; **2**, Stauffacher, J., 2.
——, Venetia.—**1**, Maddalena, L., 4.
Melbourne area (Vict.).—**0**, James, A. V. G. ; **2**, Chapman, F., 8.
Meldalen (Norway).—**0**, Vogt, T., 3.
Meldon (Devon).—**0**, Worth, R. H.
Melilite.—**1**, Millosevich, F. ; **2**, Buddington, A. F. ; Sœllner, J.
—— -nephelinite. *See* Nephelinite.
—— rock, Kola Penin.—**1**, Ramsay, W.
Melocrinus.—**2**, Springer, F.
Melting-points, minerals.—**1**, Holmquist, P. J., 6.
Melts, crystal-growth in.—**2**, Nacken, R. *See also* Silicate-melts *&* Sulphide silicate-melts.
Menaggio, Val (Lombardy).—**1**, Repossi, E.
Mendelism, palæontology &. — **2**, Bather, F. A., 2 ; Duerden, J. E. ; Gates, R. R.
Mendoza (Argentina).—**1**, Hileman, G. ; **2**, Fritzsche, C. H. ; Steuer, A.
Mera valley (Lombardy).—**1**, Repossi, E., 9, 11.
Merano (Trentino).—**0**, Spitz, A., 4.
Merapi volc. (Java).—**2**, Kemmerling, G. L. L., 2.
Mercury.—**0**, United States, 8 ; **2**, Alsén, N. ; Great Britain, 17 ; United States, 10, 12.
——, Carniola.—**0**, Hinterlechner, K., 4.
——, Italy.—**0**, Anon., 34.
——, Mexico.—**1**, Wittich, E., 2 ; **2**, Wittich, E., 11.
——, Peru.—**2**, Berry, E. W., 20.
——, Spain.—**1**, Kalb, C. de ; Ransome, F. L.
——, United States.—**0**, Schrader, F. C. ; Udden, J. A. ; United States, 4–6 ; **1**, United States, 8.
——. *See also* Cinnabar.
Mercury minerals.—**0**, Emmons, W. H. ; **1**, Steinmetz, H., 2.
Merioneth.—**0**, Cox, A. H., 4 ; **1**, Cox, A. H. ; Elles, G. L. ; **2**, Elles, G. L., 5 ; Wills, L. J.
Merostomata.—**1**, Pruvost, P., 6. *See also* Eurypterida *&* Xiphosura.
Mersey R.—**0**, Field, A. M. ; **1**, Mersey River Conservancy ; **2**, Kennedy, N. W. ; Mersey River Conservancy ; Walker, W. T.
Merwinite.—**1**, Larsen, E. S.
Merxplas (Antwerp).—**2**, Halet, F., 2.
Merycoidodon.—**1**, Thorpe, M. R., 7.
Merycoidodontidæ.—**2**,Thorpe, M. R., 6.
Mesabi Range (Minn.).—**0**, Grout, F. F., 2 ; **2**, Gruner, J. W., 1, 2 ; Newland, D. H.
Mesogereon.—**1**, Tillyard, R. J.
Mesolithic, Argentina.—**2**, Ameghino, F.
Mesopitys.—**0**, Zalessky, M. D., 2.
Mesosauria.—**2**, Stromer, E.
Mesosuchus.—**2**, Haughton, S. H.
Mesozoic, Albania.—**0**, Nopcsa, F., 3.
——, Algeria.—**1**, Ehrmann, F., 3.
——, Austria.—**0**, Geyer, G., 5 ; Hammer, W., 5 ; Sander, B., 4.
——, Basses-Alpes. — **0**, Guébhard, A., 2.
——, British Columbia. — **0**, Schofield, S. J., 2.
——, Ebro basin.—**1**, Born, A.
——, Lombardy.—**1**, Mylius, H.
——, Queensland.—**1**, Anon., 22.
——, Sweden.—**0**, Gavelin, A.
——, Switzerland.—**0**, Heim, Arnold, 3 ; **1**, Mylius, H.
——, United States (W.).—**0**, Condit, D. D., 2 ; Gregory, H. E., 2.

Mesozoic. *See also* Cretaceous, Jurassic, *&c.*
Messel (Hesse).—**2**, Haupt, O.
Messina (Sicily).—**2**, Cortese, E., 2.
Metabasite, Finland.—**1**, Wilkman, W. W.
Metadacite, United States (N.E.).—**1**, Bascom, F., 2.
Metadolerite, S. Australia.—**1**, Tilley, C. E.
Metahewettite.—**1**, Hillebrand, W. F.
Metalliferous gravels. *See* Gravels.
Metallogenetic provinces, Dutch E. Indies.—**1**, Truempy, D.
Metals, flow of.—**0**, Michelson, A. A.
——, native lore.—**1**, Simmons, W. C., 3.
——, in polarized light.—**1**, Wright, F. E., 2.
——. *See also* Precious metals.
Metamorphic rocks.—**0**, Clarke, F. W.; **2**, Armstrong, P.; Cornelius, H. P., 4.
—— ——, Adélie Land.—**2**, Stillwell, F. L.
—— ——, Austria.—**0**, Angel, F., 2; Jugovics, L., 2; Kittl, E.; **1**, Kerner, F. v., 3; Tornquist, A., 2.
—— ——, Canada.—**0**, Hanson, G.
—— ——, Congo Belge.—**1**, Dorlodot, L. de, 5; **2**, Dorlodot, L. de, 3.
—— ——, Finland.—**1**, Eskola, P.
—— ——, France.—**1**, Kerforne, F., 5; **2**, Ferronnière, G., 5; Péneau, J., 2.
—— ——, Germany.—**0**, Klemm, G., 11; **1**, Finckh, L., 3; **1**, Græfenkæmper, W.; Guerich, G.; **2**, Pietzsch, K.
—— ——, Italy.—**1**, Cornelius, H. P.; Franchi, S., 3; Repossi, E., 9; Sander, B.
—— ——, Kenya.—**0**, Parkinson, J., 2.
—— ——, Maritime Alps.—**1**, Roccati, A.
—— ——, Moravia.—**0**, Hinterlechner, K., 2.
—— ——, Mysore.—**0**, Iyengar, P. S.
—— ——, New South Wales.—**2**, Andrews, E. C.
—— ——, Nigeria.—**1**, Falconer, J. D.
—— ——, Norway.—**2**, Goldschmidt, V. M., 1, 10.
—— ——, Scandinavia.—**1**, Holtedahl, O., 4.
—— ——, Spitsbergen.—**2**, Tyrrell, G. W., 2.
—— ——, Switzerland.—**1**, Bartholmès, F.; Morgenthaler, H., 1, 2.
—— ——, Transylvania.—**1**, Liffa, A.
—— ——, United States (N.E.).—**2**, Berkey, C. P.; Wandke, A.
—— ——, felspars in.—**0**, Carlson, C. G.; Steidtmann, E.
Metamorphism. — **0**, Becke, F.; Klemm, G., 6; **1**, Barrell, J.; Cayeux, L., 2; **2**, Goldschmidt, V. M., 3.
——, Alps (W.).—**1**, Cornelius, H. P., 3.
——, Anglesey.—**0**, Greenly, E.
——, Argyll.—**2**, Thomas, Herbert H., 2.
——, Cumberland.—**0**, Melmore, S.
——, Germany. — **1**, Rinne, F.; Scheumann, K. H.; Schlossmacher, K., 3; **2**, Brauns, R., 13; Rinne, F., 5.
——, Moravia.—**0**, Kretschmer, F.
——, Mysore.—**0**, Iyengar, P. S., 2.
——, Nevada.—**0**, Spencer, A. C.
——, New South Wales.—**2**, Andrews, E. C., 2.
——, Norway.—**2**, Goldschmidt, V. M., 10.
——, Scandinavia.—**0**, Holtedahl, O., 16; **2**, Frœdin, G., 2.
——, Scotland.—**2**, Frœdin, G., 2.
——, S. Africa.—**1**, Du Toit, A. L., 2.
——, S. Australia.—**0**, Tilley, C. E., 3.
——, Sweden.—**1**, Gavelin, A.
——, Tuscany.—**1**, Fossa-Mancini, E., 3.
——, meteorites &.—**0**, Merrill, G. P., 6; **1** & **2**, Merrill, G. P.
——. *See also* Contact-metamorphism.
Metamynodon.—**1**, Troxell, E. L., 3; **2**, Cooper, C. F., 2.
Metasomatism.—**0**, Day, T. C.; **1**, Krusch, P., 2, 3.
——, Anglesey.—**0**, Greenly, E.
——, Victoria.—**1**, Junner, N. R., 1, 2.
——, in silicate-rocks. — **1**, Goldschmidt, V. M.; **2**, Goldschmidt, V. M., 12, 13.
——. *See also* Contact-metasomatism.
Metatorbernite.—**0**, Hallimond, A. F.
Meteorites.—**0**, Farrington, O. C.; Prior, G. T.; **1**, Galippe, V.; Koller, P., 3; Meunier, S., 2; Prior, G. T., 2; **2**, Michel, H., 2; Rzehak, A.
——, Antrim.—**1**, Cole, G. A. J., 3; Fletcher, L.
——, Belgium.—**1**, Buttgenbach, H.
——, Cape Province.—**0**, Cohen, E.
——, Forfarshire.—**1**, Coates, H.; **2**, McLintock, W. F. P.
——, French Indo-China.—**2**, Jacob, C., 7.
——, Germany.—**1**, Brauns, R., 5; **2**, Brauns, R., 5, 10.
——, Italian Somaliland.—**2**, Neviani, A.; Portis, A.
——, Java.—**1**, Van Es, L. J. C.
——, La Plata museum.—**1**, Kantor, M.
——, Limerick.—**1**, Cole, G. A. J., 4.
——, Lower California.—**2**, Merrill, G. P., 6.

Meteorites, Perthshire.—**1**, Coates, H.; **2**, McLintock, W. F. P.

——, Saskatchewan.—**2**, Johnston, R. A. A.

——, United States.—**0**, Merrill, G. P., 2–6, 9; Miller, A. M., 4; **1**, Keeley, F. J., 2; Meunier, S., 2; **2**, Hills, R. C.; McCallie, S. W.; Merrill, G. P., 2–7; Udden, J. A., 2.

——, composition & structure.—**0**, Merrill, G. P., 1, 10; **2**, Dittler, E., 3; Goldschmidt, V. M., 14.

——, glass.—**1**, Goldschmidt, V.

——, metamorphism in.—**1** & **2**, Merrill, G. P.

——. *See also* Aerolites, Pseudometeorite, *&c.*

Metnitz (Carinthia).—**1**, Tornquist, A., 2.

Meulan (Seine-et-Oise).—**2**, Dollfus, G. F., 3; Lemoine, P., 2.

Meule de Bracquegnies, Hainault.—**2**, Cornet, J., 2.

Meurthe-et-Moselle (France).—**0**, Cayeux, L., 3; **1**, Cayeux, L., 5.

Meuse (France).—**2**, Courty, G.; Hentze, E.

Meuse R. area.—**0**, Werveke L. v., 4; **1**, Levy, F.

Meuse valley.—**2**, Van Baren, J.

Mexico.—**0**, Golyer, E. de; Haack, W.; **1**, González, P.; **2**, Haarmann, E.; Wittich, E., 2.

——, bibliography.—**0**, Nickles, J. M., 1–3; **1**, Aguilar y Santillan, R.

——, earthquakes & volcanism.—**1**, Waitz, P., 1–4; **2**, Lumbier, M. M.

——, Geological Institute.—**0**, Paredes, T., 3.

——, mineral resources. — **2**, Cervantes, E. A.; Wittich, E., 7, 9.

——, petroleum.—**0**, Shaw, E. W., 3; **1**, Huntley, L. G.; Quensel, P., 2; Redfield, A. H., 2.

——. *See also* Coahuila, Popocatepetl, *&c.*

Mexico City area.—**1**, González, P.

Mexico, Estado de (Mexico).—**1**, Lozano, E. D.; **2**, Flores, T.; García, J. A.; Ordoñez, E.; Quevedo, M. A. de; Villafaña, A., 2; Winchell, H. V.; Wittich, E., 4.

Mexico, Gulf of—**1**, Wells, R. C.

Miage (Piedmont).—**0**, Sacco, F., 14.

Miami (Ariz.).—**0**, Ransome, F. L.

Miassite, hornblende-, Ural Mts.—**2**, Posnowa, M.

Mica. — **0**, Buttgenbach, H., 2; United States, 5, 6, 8; **2**, Cervantes, E. A., 2; Great Britain, 15; Muegge, O., 4.

——, Argentina.—**0**, Kantor, M.

——, Austria.—**2**, Mohr, H.

——, New Zealand.—**0**, Morgan, P. G., 8.

——, Queensland.—**1**, Dunstan, B.

——, S. Rhodesia.—**0**, Maufe, H. B., 2.

Mica, Sweden.—**0**, Orton, B.

——, Transvaal.—**0**, Hall, A. L., 2.

——, Travancore.—**0**, Chacko, I. C.

——, United States.—**1**, Clark, G. H.; United States, 2, 9.

——. *See also* Fuchsite, Hydromica, *&c.*

Mica minerals.—**2**, Goldschmidt, V. M., 17.

Mica-schists. *See* Schists.

Michelbacher beds, Hesse.—**1**, Dienst, P.

Michell, J., biogr.—**0**, Geikie, A.; **1**, Davison, C.

Michigan (U.S.A.).—**0**, Grover, N. C., 3–6; Jaya Ram, B.; Sherzer, W. H.; United States, 5, 6, 8; **1**, Allen, R. C.; Ehlers, G. M.

Michoacán (Mexico).—**2**, Flores, T.; Villafaña, A., 2.

Micraster.—**2**, Brydone, R. M.

Michrochemistry.—**0**, Brammall, A.; Hackl, O.

Microfauna.—**0**, Toula, F., 1, 4.

——, Bonaventure conglomerate. — **1**, Bagg, R. M.; Clarke, J. M., 5.

——, Neogene.—**2**, Takahashi, J.

Microgranite, Venetia.—**2**, Maddalena, L.

Microlestes.—**2**, Hennig, E., 5.

Microörganisms.—**2**, Gruner, J. W., 2. *See also* Bacteria.

Micropalæontology.—**1**, Schmidt, M., 2.

Microperthite.—**2**, Brauns, R., 14.

Micropetrography, gypsum.—**1** Richardson, W. A., 5.

Microscope.—**0**, Evans, J. W.; Hadfield, R., 2; Richardson, W. A., 3; **1**, Spangenberg, K.; **2**, Goldschmidt, V. M., 11; Larsen, E. S.

——, polarization.—**1**, Berek, M.; Oulianov, N., 2; **2**, Berek, M., 1, 2; Ehringhaus, A., 2–5.

——. *See also* Ultra-microscope.

Microscopy, Carboniferous Limestone.—**1**, Jones, T. A.

——, ore-minerals & ores. — **1**, Bányai, J., 3; Schlossmacher, K., 2; Schneiderhœhn, H., 2; **2**, Bastin, E. S.; Berg, G., 6.

——, H. C. Sorby &.—**0**, Hadfield, R.

——, vein quartz.—**1**, Adams, S. F.

Microseisms.—**0** & **2**, Shaw, J. J.

Microsommite.—**0**, Cesàro, G.

Mid-Continent oilfields (U.S.A.). — **0**, Bosworth, T. O.; Fath, A. E., 2; Hager, D., 2; Neal, R. O.; **1**, Jensen, H. I.

Middlefield (N.S.).—**2**, Prest, W. H.

Middlesex.—**1**, Wooldridge, S. W.; Wrigley, A.; **2**, Dewey, H., 1, 2; Sherlock, R. L., 4.

Midi fault (Belgium).—**1**, Stainier, X., 6.

Midlands, Carboniferous.—**0**, Greenwood, H. W.; Sibly, T. F.; **2**, Parsons, L. M.; Whitehead, T. H.

Midlands, mineral resources.—**0**, Bromehead, C. E. N., 1, 2 ; Fearnsides, W. G. ; **1**, Fox, J. ; Ridsdale, H. H. ; **2**, Boulton, W. S.
—— (S.), tectonics.—**0**, Cox, A. H., 3 ; Lamplugh, G. W., 2.
——. *See also* Birmingham area, Staffordshire, *&c.*
Midlands (Tasmania).—**1**, Nye, P. B.
Midlothian (Scotland).—**0**, Conacher, H. R. J.
Mieminger Mts. (Tyrol).—**0**, Lœsch, K. C. v.
Miersite.—**2**, Aminov, G., 2.
Miess (Carniola).—**2**, Dittler, E., 2 ; Granigg, B.
Milan area (Lombardy).—**1**, Mariani, E., 7, 13.
Milburn group, Lake District.—**0**, Bain, A. D. N.
Miliana (Algeria).—**0**, Dalloni, M.
Miliolidæ.—**1**, Martinotti, A.
Milk R. (Alberta-Montana).—**1**, Jones, B. E.
Millepore Oolite, Yorkshire.—**2**, Stather, J. W., 2.
Millerite.—**2**, Johnsen, A., 7.
Millevaches (Corrèze).—**2**, Mouret, G.
Millstone Grit, Ayrshire.—**0**, Dron, R. W. ; **2**, Wilson, G. V.
—— ——, England (N.).—**0**, Bisat, W. S. ; **1**, Bisat, W. S., 4.
—— ——, Lanarkshire.—**1**, Hinxman, L. W.
—— ——, Monmouthshire.—**1**, Dixon, E. E. L., 2.
—— ——, Pembrokeshire.—**1**, Dixon, E. E. L.
—— ——, Yorkshire.—**0**, Bisat, W. S., 2, 3 ; Gilligan, A. ; **1**, Bisat, W. S., 3.
MILNE, J., seismology &.—**1**, Davison, C., 3.
Mimetesite.—**2**, Pufahl, O.
Mimetite.—**0**, Wherry, E. T.
Mimoceratidæ.—**0**, Wedekind, R.
Minas Geraes (Brazil).—**0**, Brouwer, H. A., 3 ; **1**, Busz, K. ; Draper, D. ; **2**, Rimann, E., 4.
Minas series, Brazil.—**2**, Rimann, E., 4.
Minbu (Burma).—**2**, Niiya, T.
Mindelian, Cantal.—**1**, Boisse de Black, Y., 2 ; **2**, Boisse de Black, Y.
Mine water, bacteria depositing minerals from.—**2**, Parry, J.
Mineral associations.—**1**, Niggli, P., 2.
—— chemistry, text-book.—**0**, Dœlter, C., 2 ; **1**, Dœlter, C. ; **2**, Dœlter, C., 5.
—— collections.—**0**, Foshag, W. F., 7 ; Schauf, W. ; **1**, Crook, A. R. ; Whitlock, H. P. ; Zenzén, N. ; **2**, British Museum, 1, 2 ; Foshag, W. F., 2 ; Groth, P.
—— deposits.—**2**, Lindgren, W., 3 ; Niggli, P., 8.
—— production, world's.—**1**, Imperial Mineral Resources Bureau, 22 ; **2**, Great Britain, 28.
Mineral production. *See also* Alabama, India, *&c.*
Mineral resources.—**0**, Eichleiter, C. F., 4 ; Roux-Brahic, J. ; **1**, Crook, T. ; Imperial Mineral Resources Bureau, 23 ; Leith, C. K. ; **2**, Arnold, R. ; Goudkoff, P. P. ; Leith, C. K. ; Meyer, H. L. F., 5.
—— ——, Bavarian State collection.—**2**, Groth, P.
—— ——, distribution.—**1**, United States, 12 ; **2**, Krahmann, M.
—— ——, prospecting.—**0**, McLeod, A. ; **1**, Mennell, F. P., 5 ; **2**, Kœnigsberger, J., 3.
—— ——, war &.—**0**, Boswell, P. G. H., 6 ; Loughlin, G. F., 3 ; Sacco, F., 16 ; **2**, Kranz, W., 4.
—— ——, world's.—**0**, McCaskey, H. D. ; Sauer, A., 4.
—— ——. *See also* Alaska, Petroleum, *&c.*
Mineral specimens.—**2**, Parsons, A. L.
—— springs. *See* Springs.
—— veins. *See* Veins.
—— water. *See* Water.
Mineralization.—**0**, Meunier, S. ; Taber, S., 3 ; Whitman, A. R. ; **1**, Campbell, J. M.
——, Andes.—**1**, Miller, B. le R.
——, Chile.—**2**, Lindgren, W., 4 ; Marsh, R., *fil.*
——, Ille-et-Vilaine.—**1**, Duplessix, E.
——, Mexico.—**2**, Baker, C. L.
——, Peru.—**1**, Fuchs, F. G.
——, Tasmania.—**2**, Weston-Dunn, J. G.
——, United States.—**0**, Bastin, E. S., 1, 2 ; **2**, Bastin, E. S., 3.
Mineralography, felspars.—**1**, Alling, H. L., 2.
Mineralogy, determinative.—**2**, Lewis, J. V.
——, economic.—**2**, Bowles, O.
——, in German schools.—**1**, Brauns, R., 6.
——, GOETHE &.—**1**, Linck, G.
——, history of.—**2**, Mieleitner, K.
——, igneous rocks.—**0**, Johannsen, A.
——, Italy.—**0**, Sacco, F., 18.
——, microscope in.—**1**, Schneiderhœhn, H., 2.
——, Sweden.—**1**, Aminov, G., 3.
——, text-books.—**2**, Dana, E. S. ; Hornstein, F. F.
——, in United States.—**1**, Kraus, E. H.
Minerals, in andesite.—**1**, Marín, A., 2.
——, bacteria depositing.—**2**, Parry, J.
——, in basalt.—**2**, Wurm, C.
——, blow-pipe &.—**1**, Holmquist, P. J., 6.
——, carbonate.—**0**, Hardy, F.
——, in coal.—**0**, Iwasaki, C.

Minerals, coloration.—**1**, Dœlter, C., 2 ; Jakob, J., 2 ; **2**, Bamberger, M. ; Dœlter, C., 6 ; Goldschmidt, V. M., 8.

——, comparison of.—**0**, Simpson, E. S., 3.

——, composition.—**1**, Zambonini, F.; **2**, Bœke, H. E., 7 ; Wherry, E. T.

——, contact.—**0**, Eakle, A. S., 2 ; **1**, Eckermann, H. v. ; Smythe, D. D. ; **2**, Eckermann, H. v. ; Goldschmidt, V. M.

——, in coral-limestones.—**0**, Harrison, J. B.

——, of crystal-cavities.—**2**, Doss, B., 2.

——, density. —**1**, Adams, L. H. ; Day, A. L. ; **2**, Schwarz, M. v.

——, determination.—**0**, McLeod, A.; **2**, Lewis, J. V.

——, flow .—**0**, Michelson, A. A.

——, formation. — **1**, Harrassowitz, H. L. F., 2 ; **2**, Johnston, J. ; Niggli, P. ; Stutzer, O.

——, gangue.—**0**, Emmons, W. H. ; **2**, Berg, G., 8.

——, genesis.—**2**, Hurst, M. E.

——, glacially transported.—**1**, Musy, M., 2.

——, hardness.—**0**, Rosiwal, A. ; **2**, Borgstrœm, L. H. ; Holmquist, P. J., 2 ; Kalb, G., 8.

——, heat &.—**2**, Samojlov, J.

——, helium in.—**1**, Rogers, G. S., 2.

——, hygroscopicity.—**2**, Šplíchal, J.

——, life in.—**1**, Galippe, V.

——, in limestone.—**0**, Laitakari, A.

——, liquid inclusions in. — **2**, Nacken, R., 3.

——, luminescence.—**2**, Michel, H.

——, of magmatic rocks.—**2**, Eitel, W., 4.

——, microscope &.—**1**, Schneiderhœhn, H., 2 ; **2**, Larsen, E. S.

——, new. — **1**, Schwantke, A. ; Wherry, E. T., 2–5, 7 ; **2**, Schwantke, A., 2.

——, nomenclature.—**1**, Ford, W. E.; Geijer, P. ; Shannon, E. V., 3 ; Wherry, E. T., 6 ; **2**, Spencer, L. J.

——, optics.—**2**, Rosenbusch, H. ; Wright, F. E.

——, osmiridium &.—**1**, Reid, A. M.

——, in pegmatite.—**1**, Repossi, E., 8 ; **2**, Rimann, E., 2 ; Wagner, P. A., 2.

——, petrographic methods &.—**1**, Holmes, A.

——, polymorphism in.—**2**, Brauns, R., 12 ; Muegge, O., 13.

——, properties.—**1**, Crook, T.; Gray, C. J.

——, pseudomorphs.—**2**, Laubmann, H., 2–4.

——, as radio-detectors.—**2**, Roberts, H. S.

——, refractive index.—**1**, Cotton, L. A.

——, rock-forming.—**0**, Clarke, F. W.

Minerals, in sands.—**1**, Artini, E., 5–7 ; Salmojraghi, F., 2, 3–5 ; **2**, Artini, E.

——, separation of.—**0**, Davies, G. M., 2 ; **2**, Clerici, E. ; Truscott, S. J.

——, in silt.—**0**, Hardy, F.

——, sparks & odours from.—**2**, Johnsen, A., 15, 16.

——, synantetic.—**0**, Sederholm, J. J.

——, synthesis of.—**1**, Dittler, E. ; Kœnigsberger, J., 2.

——, thermal expansion.—**1**, Schulz, K. ; **2**, Schulz, K., 2.

——, translation-gliding.—**2**, Johnsen, A., 13 ; Muegge, O., 12 ; Veit, K.

——, triclinic.—**1**, Wherry, E. T.

——, in tuff.—**2**, Berns, A.

——, in water.—**0**, Andrimont, R. d'.

——, X-rays &.—**2**, Aminov, G.

——, of xenoliths.—**2**, Thomas, Herbert H., 2.

——. *See also* Barium minerals, Connecticut, Heavy minerals, *&c.*

Minerogenesis.—**2**, Niggli, P.

Minerva.—**2**, Wetmore, A.

Mines, Brittany.—**2**, Descoqs, A. *See also* Coal mines.

Minette, Bohemia.—**0**, Želízko, J. V., 4.

——, France (N.E.).—**0**, Berg, G., 4 ; Langrogne, — ; **1**, Buecking, H. ; **2**, Berg, G., 11.

——, United States (N.W.). — **2**, Kemp, J. F., 7 ; Shannon, E. V., 2.

Mining.—**0**, Gilbert, G. K. ; Weithofer, K. A.

——, Brazil.—**0**, Lee, T. H.

——, Japan.—**2**, Japan.

——, Lorraine.—**0**, Langrogne, —.

——, Peru.—**1**, Simmersbach, B., 3.

——, Transylvania.—**0**, Pálfy, M. v., 2.

——, Yunnan.—**0**, Brown, J. C., 2.

——, early, Hyderabad.—**1**, Munn, L.

——, geology &.—**1**, Locke, A. ; Mennell, F. P.

——, law &.—**0**, Kemp, J. F., 4.

——, Spanish terms.—**1**, Halse, E.

——, submarine, Newfoundland.—**0**, Chambers, R. E.

——, subsidence in.—**2**, Louis, H., 2 ; Rees, D. W.

——. *See also* Coal mining, Rockbursts, *&c.*

Minium, Tyrol.—**2**, Dittler, E.

Minnesota (U.S.A.).—**0**, Bowles, O. ; Grout, F. F., 3 ; Leverett, F. ; Sardeson, F. W. ; Soper, E. K. ; Steidtmann, E. ; **2**, Leverett, F., 1, 2.

—— (——), iron.—**0**, Broderick, T. M. ; Grout, F. F., 2 ; Harder, E. C., 3 ; **2**, Gruner, J. W., 1, 2 ; Newland, D. H.

Minnesota (U.S.A.), Palæozoic. — **1**, Stauffer, C. R.; **2**, Dake, C. L.; Stauffer, C. R.
—— (——), water.—**0**, Grover, N. C., 3–5; **2**, Grover, N. C., 4.
Miocene, Africa (N.).—**0**, Dalloni, M., 1, 2; Ficheur, E., 2; Gentil, L., 2; **1**, Blayac, J.; Dalloni, M.; Depéret, C., 2; Gentil, L.; Joleaud, L., 3; **2**, Brives, A., 2, 3; Dalloni, M., 2, 3, 6; Gentil, L.
——, Albania.—**2**, Nowak, E., 6.
——, Alps (E.).—**0**, Petrascheck, W., 3.
——, Asia Minor.—**0**, Oppenheim, P., 8; **2**, Daus, H.
——, Assam.—**0**, Pinfold, E. S., 3; **1**, Vredenburg, E., 3.
——, Austria.—**0**, Gœtzinger, G., 4; Petrascheck, W., 3; **1**, Toula, F.; **2**, Jooss, C. H.; Nowak, E., 3; Richarz, P. S.
——, Baden.—**2**, Reck, H., 6.
——, Bavaria.—**1**, Fischer, K.; **2**, Kranz, W., 6.
——, Belgium.—**2**, Leriche, M.
——, Brandenburg.—**1**, Keilhack, K., 3; Wahnschaffe, F., 2.
——, British Columbia.—**1**, Reinecke, L.; **2**, Uglow, W. L.
——, Carniola.—**1**, Heritsch, F., 6.
——, Carpathians.—**1**, Voitesti, J. P.
——, Ceylon.—**2**, Wayland, E. J.
——, Chile.—**2**, Berry, E. W., 4.
——, Cyrenaica.—**1**, Stefanini, G., 2.
——, Czechoslovakia. — **1**, Kormos, T., 5; Lóczy, L. v., *fil*, 2; Wenz, W., 2; **2**, Rzehak, A., 3; Seemann, F.
——, Denmark.—**1**, Milthers, V., 9.
——, E. Indies.—**0**, Douvillé, H.; Martin, K., 2; **1**, Felix, J., 3; Ziegler, K. G. J.; **2**, Dickerson, R. E., 1, 3.
——, Egypt.—**0**, Hume, W. F., 3, 5; Mrazec, L.; **2**, Moon, F. W.
——, France.—**0**, Bézier, T.; Denizot, G., 4; Depéret, C.; Dollfus, G. F., 2, 19; Douvillé, H., 5; Kerforne, F., 9; Termier, P., 8; **1**, Cossmann, M.; Dollfus, G. F., 13; Kerforne, F., 5; **2**, Dollfus, G. F., 4; Dutertre, A. P.; Ganichaud, B.; Kerforne, F. J., 3; Milon, Y.; Péneau, J., 3; Repelin, J.
——, Germany.—**1**, Gripp, K.; **2**, Leuze, J.
——, Hamburg area.—**1**, Wolff, W., 4.
——, Hampshire basin.—**2**, Hooley, R. W.
——, Hesse-Nassau. — **0**, Schottler, W., 5; **1**, Beetz, W.; Blanckenhorn, M., 2–5; Wenz, W.; **2**, Wenz, W., 5.
——, Hungary.—**1**, Lóczy, L. v., *fil*; Pálfy, M. v., 3.
Miocene, Italy.—**0**, Bonomini, C.; Sacco, F., 11; Segré, C.; Stefanini, G., 2; **1**, Lupano, G.; Papp, K. v., 2; Pretto, O. de; Zuffardi, P.; **2**, Dal Piaz, G.; Fabiani, R., 8; Oppenheim, P.; Principi, P., 2; Zenari, S.
——, Japan.—**2**, Iki, T.; Yabe, H., 4.
——, Lausitz.—**0**, Keilhack, K., 3, 9.
——, Lower California.—**2**, Darton, N. H.
——, New Zealand.—**0**, Bartrum, J. A., 5; **2**, Park, J.
——, North Sea area.—**1**, Gripp, K.; **2**, Oppenheim, P., 4.
——, Persia.—**2**, Dietrich, W. O., 2.
——, Peru.—**0**, Bosworth, T. O., 2; **2**, Bosworth, T. O.; Spieker, E. M.
——, Poland.—**0**, Loziński, W. v.; **1**, Bukowski, G.; Gagel, C., 8.
——, Portugal.—**2**, Gómez, J. R.
——, Rheinland.—**1**, Quaas, A., 6.
——, Romania.—**1**, Halaváts, G. v., 1–3; Papp, K. v., 3; **2**, Botez, G., 3; Grozescu, H., 3, 5; Ionescu-Argetoaia, I., 6; Macovei, G., 6; Popescu-Voiteşti, I., 4–6; Preda, D. M., 3, 5; Protescu, O., 5; Sevastos, R., 5.
——, Schleswig-Holstein.—**1**, Wolff, W., 2.
——, Silesia.—**1**, Assmann, P., 2; Behr, J.; **2**, Frech, F.
——, S. Australia.—**1**, Chapman, F., 3.
——, Spain. — **2**, Gignoux, M.; Gómez, J. R.
——, Swabia.—**2**, Wenz, W., 2.
——, Switzerland.—**1**, Baumberger, E.; Gerber, E., 6; **2**, Leuze, J.
——, Syria.—**2**, Daus, H.
——, United States.—**0**, Pack, R. W.; **1**, Chaney, R. W.; English, W. A.; Stock, C.; Trask, P. D.; **2**, Chaney, R. W.; O'Harra, C. C.; Trask, P. D.
——, Victoria.—**2**, Chapman, F., 2, 3, 6.
——, W. Indies.—**0**, Maury, C. J.; Roig, M. S.; **2**, Woodring, W. P.
——, Württemberg.—**2**, Lutzeier, H.; Wenz, W., 4.
——. *See also* Helvetian, Sarmatian, *&c.*
Mirabilite.—**0**, Debenham, F.
Miramar (Buenos Aires).—**1**, Frenguelli, J., 2.
Misma, Mte. (Lombardy).—**1**, Alessandri, G. de, 3, 4.
Misol I. (D.E.I.).—**0**, Sœrgel, W.; **1**, Jaworski, E.
Mispec group, New Brunswick.—**2**, Matthew, G. F.
Mispickel. *See* Arsenopyrite.
Mississippi (U.S.A.).—**0**, Berry, E.W., 1, 2; Shaw, E. W., 2; **1**, Hall, B. M.; **2**, Cooke, C. W., 2.
Mississippi R.—**1**, Deckert, E.

Mississippi R. basin.—**0**, Grover, N. C., 3–5 ; **2**, Dake, C. L. ; Grover, N. C., 4, 6.
Mississippi valley.—**0**, Thwaites, F. T. ; **1**, Leverett, F. ; Thwaites, F. T., 2 ; **2**, Winchell, A. N.
Mississippian, N. America.—**0**, Butts, C., 2 ; Miser, H. D., 2 ; Van Tuyl, F. M. ; **1**, Bell, W. A. ; **2**, Kemp, J. F., 7.
Missouri (U.S.A.).—**0**, Dake, C. L. ; Hinds, H., 3 ; Merrill, G. P., 4 ; Missouri ; Purdue, A. H. ; Tarr, W. A. ; **2**, Smith, W. S. T.
—— (——), mineral resources.—**0**, United States, 5, 6, 8 ; Wilson, M. E. ; **1**, Tarr, W. A., 2, 3.
—— (——), Palæozoic.—**0**, Branson, E. B. ; Gregor, D. K. ; Hinds, H., 2 ; McCourt, W. E. ; **1**, Branson, E. B. ; **2**, Bridge, J. ; Dake, C. L.
Missouri R. (U.S.A.).—**2**, Todd, J. E.
Missouri R. basin (U.S.A.), water.—**0**, Grover, N. C., 2–4 ; **1**, Grover, N. C., 3 ; **2**, Grover, N. C., 5.
Missouri valley (U.S.A.).—**1**, Greene, F. C.
Mitcheldean (Glos).—**2**, Sibly, T. F.
Mitcheldeania-limestone, Bristol area. —**1**, Reynolds, S. H., 2.
Mittelbünden (Graubünden).—**1**, Leupold, W. ; **2**, Arbenz, P., 1, 2.
Mittelgebirge (Bohemia).—**0**, Senger, A. ; Thuma, F., 3 ; **2**, Seemann, F.
Mittelland (Berne).—**1**, Nussbaum, F. ; **2**, Nussbaum, F., 2.
Mittelsinn (Franconia).—**1**, Seyfried, E. v.
Mitterndorf (Styria).—**0**, Geyer, G., 3.
Miura Penin. (Japan).—**0**, Yokoyama, M.
Mixed crystals.—**1**, Eitel, W. ; Holmquist, P. J., 9 ; Jakob, J., 3 ; Ritzel, A. ; **2**, Bœke, H. E., 6 ; Eitel, W., 1, 4.
Mixnitz (Styria).—**2**, Abel, O., 1, 2 ; Kyrle, G. ; Schadler, J. ; Stiny, J. ; Wettstein-Westersheim, O.
Mixosaurus.—**1**, Repossi, E., 2.
Mjösen (Norway).—**0**, Holtedahl, O.
Models, calcite cave.—**0**, Gardner, H. F.
——, crystal - structure. — **0**, Whitlock, H. P., 2 ; **2**, Muegge, O., 3 ; Spangenberg, K., 2.
——, geological.—**2**, Cleland, H. F.
——, oil fields.—**0**, Mills, R. V. A. ; **1**, Mills, R. V. A., 2.
——, petrology.—**2**, Niggli, P., 2.
——, Staffordshire coalfield. — **0**, King, W. W.
——, tectonics.—**0**, Mead, W. J. ; Oldham, R. D. ; Quirke, T. T. ; Wright, F. E.
Modiola.—**2**, Thompson, B., 2.
Mödling (Lr. Austria).—**0**, Toula, F., 2 ; **1**, Spitz, A. ; **2**, Richarz, P. S.
Möen (Denmark).—**1**, Hintze, V.
Moghara (Sinai).—**1**, Douvillé, H., 3.
Mohave Desert (Cal.).—**2**, Clark, C. W. ; Thompson, D. G.
Mokau (N.Z.).—**0**, Henderson, J.
Mokoto (Congo Belge).—**2**, Sharpe, A.
Molasse, Constance L. area.—**2**, Bœhndel, E.
——, France.—**0**, Déguilhem, P. ; Dollfus, G. F., 2.
——, Germany.—**0**, Berz, K. C. ; Gillitzer, G. ; Lœffler, K. ; **1**, Cornelius, H. P., 2 ; **2**, Dietrich, W. O., 10 ; Leuze, J. ; Lutzeier, H.
——, Switzerland.—**0**, Frei, R; Heim, Arnold, 4 ; **2**, Dietrich, W. O., 10; Leuze, F. ; Mollet, H. ; Stehlin, H. G.
——, ophiolitic, Apennines (N.).— **1**, Pantanelli, D.
Moldavia (Romania).—**0**, Simionescu, I. ; **2**, Athanasiu, S. C. ; Grozescu, H., 2 ; Murgoci, G., 4 ; Ostrogovich, A. ; Tănăsescu, I., 3.
—— (——), agrogeology.—**2**, Enculescu, P., 1–4 ; Murgoci, G., 1, 2 ; Protopopescu-Pake, E. I., 4, 5.
—— (——), geology.—**2**, Botez, G. ; Grozescu, H. ; Macovei, G., 10; Meruţiu, V., 2 ; Preda, D. M., 1, 2 ; Sevastos, R., 1, 2.
—— (——), Quaternary.—**2**, Athanasiu, S. C., 5 ; Sevastos, R., 3, 4.
—— (——), Tertiary.—**2**, Athanasiu, S. C., 6 ; Botez, G., 3 ; Grozescu, H., 3–5 ; Preda, D. M., 3–5 ; Sevastos, R., 5.
Moldavite, Bohemia.—**0**, Želízko, J. V., 11.
Moler formation, Denmark.—**1**, Bœggild, O. B.
Moléson (Fribourg).—**0**, Girardin, P., 3 ; **1**, Gagnebin, E. ; **2**, Mauve, C. C.
Moliagul, Mt. (Vict.).—**2**, Baragwanath, W.
Mollendo (Peru).—**0**, Douglas, J. A.
Mollusca, Palæogene.—**1** Cossmann, M.
——, Pleistocene.—**1**, Menzel, H., 2.
——, Tertiary.—**2**, Suter, Henry.
——, geographical distribution.—**0**, Vredenburg, E. W.
——, shells.—**2**, Ionescu-Argetoaia, I., 5 ; Oppenheim, P., 7.
Molong (N.S.W.).—**1**, Tchirvinsky, P.
Moltkia.—**0**, Nielsen, K. B.
Moluccas (D.E.I.).—**0**, Brouwer, H. A. ; **2**, Wanner, J. *See also* Buru I., Seran I., *&c.*
Molybdates. *See* Polymolybdates.
Molybdenite, Aar Massif.—**2**, Kœnigsberger, J.
——, Alaska.—**2**, Mertie, J. B., *fil.*
——, British Columbia.—**0**, Gwillim, J. C., 6.
——, Colorado.—**0**, Haley, D. F.
——, Nova Scotia.—**0**, Gwillim, J. C., 3.

Molybdenite, Ontario.—**0**, Gwillim, J. C., 5 ; **1**, Wilson, M. E.
——, Quebec.—**0**, Gwillim, J. C., 4.
——, Victoria.—**0**, Herman, H., 4 ; **2**, Baragwanath, W. ; Herman, H. ; Kenny, J. P. L., 5.
——, W. Australia.—**0**, Blatchford, T., 8 ; Clarke, E. de C., 3.
Molybdenum.—**0**, United States, 4–6, 8 ; **1**, Brown, J. C., 4 ; **2**, Fleck, H.; Simmersbach, B., 12.
——, Canada.—**0**, Canada, 2.
——, Hesse.—**2**, Krusch, P., 5.
——, Norway.—**0**, Woakes, E. R.
——, United States.—**0**, Larsen, E. S., 3 ; **2**, United States, 8, 10.
——. *See also* Wulfenite.
Molybdenum minerals.—**0**, Emmons, W. H.
Mona Complex, Anglesey. — **0**, Greenly, E. ; **2**, Greenly, E., 2.
Monadnocks.—**0**, Behrend, F., 2 ; Holmes, A., 11.
Monazite.—**0**, Palache, C., 4 ; Tipper, G. H., 1, 4 ; United States, 5, 9 ; **1**, Arlt, H. ; Busz, K. ; Imperial Mineral Resources Bureau, 9 ; Jones, H. C. ; **2**, Busz, K., 1, 2 ; Uhlig, J., 3. *See also* Turnerite.
—— -granite. *See* Granite.
Monbahus (Lot-et-Garonne).—**0**, Déguilhem, P.
Monchique, Serra de (Portugal).—**2**, Kaiser, E.
Monchiquite, Madeira.—**0**, Gagel, C.
——, olivine-, Baden.—**2**, Sœllner, J., 3.
Monferrato (Piedmont).—**1**, Lupano, G.
Mongolia.—**2**, Foslie, S., 2.
Monmouthshire.—**0**, Cox, A. H., 1, 2 ; Sibly, T. F., 2 ; **1**, Dixon, E. E. L., 2 ; **2**, Davies, R.
Monochromator.—**2**, Peck, A. B.
Monoclinal ridges.—**0**, Grabau, A. W., 10.
Monodonta.—**0**, Meli, R., 2.
Monograptus.—**1**, Dollé, L., 2 ; **2**, Hundt, R., 1, 3, 5.
Mons (Hainault).—**0**, Cornet, J., 1, 4 ; **2**, Bataille, L.
Mont Aigu, *&c.* *See* Aigu, Mt., *&c.*
Mont Blanc.—**0**, Oulianov, N., 4 ; Sacco, F., 14, 22 ; **1**, Collet, L. W. ; Douvillé, H., 14 ; **2**, Paréjas, E., 1, 3.
Mont-Dore (Puy-de-Dôme).—**1**, Glangeaud, P., 2 ; **2**, Loisel, P., 2.
Mont-Thabor (Savoie).—**0**, Pussenot, C.
Montagne de Bar. *See* Bar.
Montagne Noire (S. France).—**1**, Rothey, P. L.
Montalivet (Gironde).—**1**, Degrange-Touzin, A.
Montana (U.S.A.).—**0**, Bowen, C. F., 2 ; Collier, A. J., 2 ; Kemp, J. F., 5 ; **1**, Bevan, A. ; **2**, Davis, W. M., 3 ; Hurst, M. E. ; Kemp, J. F., 7 ; Thom, W. T., *fil*, 2.
Montana (U.S.A.), geology & mineral resources.—**0**, Barnett, V. H. ; Calvert, W. R. ; Collier, A. J. ; Hancock, E. T., 1, 2 ; Stebinger, E. ; Woolsey, L. H.
—— (——), mineral resources.—**0**, Bowen, C. F. ; Condit, D. D., 3 ; Pardee, J. T. ; Stebinger, E., 2 ; **1**, Pardee, J. T. ; **2**, Thom, W. T., *fil.*
—— (——), ore-deposits.—**0**, Pardee, J. T., 2, 3, 5, 6 ; United States, 4–6, 8 ; Westgate, L. G. ; **2**, Diller, J. S., 2 ; Pardee, J. T. ; United States, 8, 10.
—— (——), stratigraphy.—**0**, Bowen, C. F., 3 ; Collier, A. J., 8 ; Condit, D. D., 2 ; Rothpletz, A.
—— (——), water.—**0**, Grover, N. C., 1–5 ; Meinzer, O. E. ; **1**, Grover, N. C., 3, 5 ; Jones, B. E. ; **2**, Grover, N. C., 4, 5.
Montanaria.—**1**, Spriestersbach, J., 2.
Montbéliard (Doubs).—**2**, Charpiat, R. ; Fournier, E.
Monte Adamello, *&c.* *See* Adamello, Mte., *&c.*
Montecchio Maggiore (Venetia).—**2**, Billows, E. ; Kranz, W. ; Oppenheim, P.
Montecristo I. (Tuscany).—**0**, Sabatini, V., 2.
Montello. *See* Colle Montello.
Montenegro (Yugoslavia).—**0**, Nopcsa, F., 2 ; Zontar, J.
Monteviale (Venetia).—**2**, Kranz, W. ; Oppenheim, P.
Montgomeryshire.—**1**, Nicholson, E. D. ; **2**, Jones, O. T.
Monti Albani (Lazio).—**1**, Agamennone, G., 2.
Montian, France.—**2**, Dollfus, G. F., 3 ; Lambert, J., 1, 2.
——, Hainault.—**2**, Bataille, L.
Monticellite.—**1**, Hallimond, A. F. ; **2**, Bowen, N. L., 2.
Montigny-sur-Meuse (Ardennes).—**1**, Pruvost, P., 5.
Montjean (Maine-et-Loire).—**1**, Carpentier, A., 3.
Montmorillonite.—**1**, Leitmeier, H., 2.
Montorso (Lazio).—**0**, Meli, R., 5 [6].
Montpellier sands, Hérault.—**2**, Gennevaux, M.
Montreux (Vaud).—**1**, Gagnebin, E.
Montsalvens (Fribourg).—**0**, Heim, Arnold, 2 ; Schardt, H., 2 ; **1**, Heim, Arnold ; Schardt, H., 3.
Montserrat I. (Leeward Is.).—**2**, Hardy, F.
Monza (Lombardy).—**1**, Mariani, E., 7.
Monzonite, Sweden.—**1**, Magnussen, N. H.
Mooloolah (Queensl.).—**2**, Morton, C. C.
Moon.—**0**, Meunier, S., 4 ; **2**, Guébhard, A., 2.

Moonstone.—**1**, Kôzu, S., 1, 3; Tutton, A. E. H.
Mooradoranook (Vict.).—**0**, Ferguson, W. H., 3.
Moorlands (S. Austr.).—**1**, Ward, L. K., 1, 7; **2**, Broughton, A. C.
Moorlog.—**1**, Whitehead, H.
Moraines, Finland.—**0**, Tolvanen, V.
——, Germany.—**0**, Bærtling, R., 3; Hess von Wichdorff, H.; Jentzsch, A., 8; Keilhack, K., 7; Wegner, T.; **1**, Fliegel, G., 3; Hœppner, —; Korn, J., 3; Linstow, O. v., 3, 7; Tietze, O., 5.
——, Manitoba.—**1**, Alcock, F. J., 4.
——, Norway.—**0**, Reusch, H., 6; **1**, Holmsen, G., 2; Rekstad, J.
——, Piedmont.—**0**, Sacco, F., 14, 15.
——, Poland.—**0**, Lencewicz, S., 3; **1**, Korn, J., 3.
——, Rhine Valley.—**0**, Gagel, C., 7.
——, Riesengebirge.—**2**, Berg, G., 3.
——, S. Victoria Land.—**2**, Debenham, F.
——, Sweden.—**0**, Ahlmann, H. W.; **1**, Hœgbom, A. G.
——, Switzerland.—**0**, Leuthardt, F.; **1**, Gerber, E., 4; Leuthardt, F., 2; Nussbaum, F., 2; **2**, Joukowsky, E.; Mauve, C. C.
——, Tyrol.—**0**, Ampferer, O., 7.
——, United States.—**0**, Alden, W. C.; Katz, F. J., 2; **2**, Leverett, F., 2.
——, terminal, Baltic States.—**2**, Philipp, H., 2.
——, ——, Germany.—**1**, Gagel, C., 3, 9; Keilhack, K., 6; Korn, J., 4; Meyer, E., 5, 6; Wahnschaffe, F., 2; **2**, Geinitz, E., 2; Woldstedt, P.
——, ——, Poland.—**1**, Korn, J., 2.
Moravia (Czechoslovakia).—**0**, Gœtzinger, G.; Hackl, O., 2; Hinterlechner, K., 2; Kretschmer, F.; Sander, B., 2; **2**, Kretschmer, F.; Rzehak, A., 2.
—— (——), Flysch.—**2**, Kettner, R., 6; Kodym, O., 4; Stočes, B., 2.
—— (——), mineral resources.—**0**, Toula, F., 4; **2**, Glatzel, E., 3; Kettner, R., 4; Kretschmer, F., 4; Smetana, V., 2.
—— (——), sulphur springs. — **0**, Eichleiter, C. F., 2; **2**, Kretschmer, F., 5.
—— (——), Tertiary.—**0**, Petrascheck, W., 4, 5; Rzehak, A.; **2**, Rzehak, A., 3.
Moravite, Moravia.—**2**, Kretschmer, F., 4.
Morayshire. *See* Elgin.
Morbihan (France).—**0**, La Porte, F.; **2**, Collin, L., 2.
MORGENTHAU, M. L., mineral collection.—**1**, Whitlock, H. P.
Moriac (Vict.).—**2**, Howitt, A. M., 2.
Morion.—**2**, Doss, B., 2.
Mornington Penin. (Vict.).—**2**, Chapman, F., 3.
Morocco.—**0**, Abrard, R., 2; Anon., 22; Coëmme, S., 2; **1**, Savornin, J., 5; **2**, Barthoux, J., 2; Brives, A.; Gentil, L., 2; Savornin, J., 2, 3.
——, Mesozoic.—**0**, Abrard, R., 1, 3; Kilian, W.; **1**, Gillet, S.; **2**, Russo, P., 3, 5.
——, Palæozoic.—**1**, Douvillé, H., 9; Savornin, J., 3; **2**, Lecointre, G., 2.
——, phosphates.—**1**, Brives, A.; Savornin, J., 2; **2**, Brives, A., 3; Gentil, L., 1, 5; Joleaud, L., 5.
——, stratigraphy.—**0**, Abrard, R., 4; Brives, A.; Kilian, W., 2; **1**, Gentil, L.; **2**, Lecointre, G., 3; Russo, P., 4.
——, tectonics.—**1**, Gentil, L., 5; Lutaud, L.; **2**, Beaugé, A.; Gentil, L., 3.
——, terraces.—**0**, Russo, P., 2; **1**, Passemard, E., 2; Russo, P., 2.
——, Tertiary.—**0**, Russo, P.; Savornin, J., 2; **1**, Savornin, J., 4; **2**, Lecointre, G.
—— (E.).—**1** & **2**, Russo, P.
—— (Spanish).—**1**, Bosch, J. M. del, 2; Lôme, E. D. de; Marín, A., 1–3; Valle, A. del, 1, 2; **2**, Navarro, L. F.
Moropus.—**0**, Osborn, H. F., 1, 6.
Morosaurus.—**0**, Osborn, H. F., 11.
Morpholites, Tuscany.—**0**, Pelloux, A.
Morphology, rock-erodibility &.—**1**, Ugolini, R., 2.
Morrison formation, United States.—**0**, Lee, W. T., 2; **1**, Osborn, H. F., 6.
Mortlakes.—**0**, Bury, H., 3; Ellis, T. S.
Morvan Mts. (France).—**2**, Boit, —; Brepson, F.
Mosandrite.—**1**, Zambonini, F., 2.
Mosasauria.—**0**, Huene, F. v., 2.
Mosbacher sand, Hesse.—**2**, Weiler, W.
Moschops.—**0**, Gregory, W. K.
Moselle R. area (France-Germany).—**0**, Leppla, A.; Werveke, L. v., 4.
Moss Vale (N.S.W.).—**0**, Harper, L. F., 7.
Mottramite.—**2**, Pufahl, O.
Moulding-sands. *See* Sands.
Mounds, Illinois.—**2**, Crook, A. R.
Mount Ayliff (Griqualand E.).—**1**, Prior, G. T., 2.
Mount Currie (Cape Prov.).—**0**, Du Toit, A. L.
Mount Everest, *&c*. *See* Everest, Mt., *&c*.
Mountain-building.—**0**, Stille, H., 2, 3; **1**, Bull, A. J.; Burrard, S.; **2**, Rimbach, C.
——-——, Algeria.—**1**, Ehrmann, F.

Mountain-building, Alps.—**0**, Staub, R., 2; **1**, Cornelius, H. P., 3; Staub, R., 8.
——-——, Andes.—**2**, Gerth, H., 2, 3.
——-——, Asia Minor.—**0**, Frech, F., 2.
——-——, Austria.—**1**, Tornquist, A., 2.
——-——, Bohemia.—**0**, Kettner, R., 5; Wæhner, F., 1, 2.
——-——, Canada (E.).—**1**, Tilmann, N.
——-——, Carpathians (E.).—**2**, Quiring, H., 2.
——-——, China.—**1**, Solger, F., 2.
——-——, Germany.—**0**, Krusch, P., 3; **1**, Grupe, O., 4; Mestwerdt, A., 4; Naumann, E., 11; Philippi, E.; Vogel, H., 1, 2; Zimmermann, E., I, 2; **2**, Seidlitz, W. v.,2.
——-——, Holland.—**0**, Krusch, P., 3.
——-——, Istria.—**1**, Winkler, A.
——-——, Moluccas.—**0**, Brouwer, H. A.
——-——, N. America.—**0**, Van Tuyl, F. M.; Woodworth, J. B.
——-——, Rocky Mts.—**1**, Dake, C. L.
——-——, Spain.—**1**, Gomez, J. R.
——-——, earth's rotation &.—**1**, Quiring, H., 5.
——-——, glacial periods &.—**2**, Quiring, H., 3.
——-——, gravity anomalies &.—**0**, Ampferer, O., 13.
——-——, Hercynian.—**1**, Winterfeld, F.
——-——, model illustrating.—**0**, Oldham, R. D.
——-——, ore-veins &.—**1**, Stahl, A.
——-——, tectonics &.—**0**, Ampferer, O., 5; Schmidt, W.; **1**, Guébhard, A., 7; **2**, Lehmann, K.
——-——, Variscan.—**2**, Born, A., 4.
——-——, volcanism &.—**1**, Chamberlin, R. T.; **2**, Ampferer, O.
Mountain-chains.—**0**, Wilckens, O., 10.
——-—— Central Europe. — **2**, Limanovski, M., 2.
——-——, tectonics &.—**2**, Argand, E.; Burrard, S.; Russo, P., 2; Teisseyre, W.
Mountains.—**0**, Weithofer, K. A.
——, Asia (S.E.).—**2**, Gregory, J. W., 10.
——, New Mexico.—**0**, Darton, N. H., 7.
——, earth's contraction &.—**1**, Taylor, F. B., 2.
——, erosion &.—**0**, Bryan, K., 2; Hobbs, W. H., 2.
——, plateaux &.—**0**, Stille, H., 2.
——, seismic waves &.—**1**, Mintrop, L.
Mountains, tectonics &.—**0**, Ampferer, O., 11; Quiring, H., 3; **1**, Hobbs, W. H., 3; Quiring, H., 4; Taylor, F. B.
——, water &.—**0**, Sacco, F., 19, 26; **1**, Luetschg, O.
——, weight of.—**0**, Heim, Albert, 2; **1**, Musy, M.
——. *See also* Fold-mountains.
Mousterian, Egypt.—**1**, Seligman, C. G., 2.
——, Europe.—**2**, Battaglia, R.
——, France.—**0**, Passemard, E.; **1**, Ameghino, F., 15; Passemard, E.
Mozambique (Portuguese E. Afr.).—**0**, Holmes, A., 7, 9, 11.
Mud-cracks.—**2**, MacCarthy, G. R.
——-flow, Fribourg.—**0**, Girardin, P., 4.
——-holes. *See* Charcos.
——-volcanoes.—**2**, Ibarrola, A. M. de.
——-——, Burma.—**2**, Niiya, T.
——-——, Colombia.—**1**, Herold, S. C.
——-——, Kerch Penin.—**2**, Sedeltschikov, W.
——-——, Rotti I.—**2**, Brouwer, H. A., 13.
——-——. *See also* Salses.
Muddy Mts. (Nev.).—**1** & **2**, Longwell, C. R.
Mudgee (N.S.W.).—**2**, Jones, L. J., 2.
Muds, Antarctica.—**0**, Debenham, F.
——, Sweden.—**2**, Osvald, H.
——, Yangtse R.—**0**, Keilhack, K.
——, fluvial, Italy.—**1**, Dominicis, A. de, 2.
——, sea-bottom.—**0**, Andrée, K., 1, 2.
Mueller glacier (N.Z.).—**0**, Hardcastle, J.
Mugearite, Edinburgh.—**1**, Peach, B. N.
Mühlhausen (E. Prussia).—**1**, Meyer, E., 5.
Mulde R. (Germany).—**0**, Kutz, —.
Mulgine, Mt. (W. Austr.).—**0**, Blatchford, T., 8.
Mülheim (Rheinland).—**1**, Fliegel, G., 1, 2.
Mulhouse (Alsace).—**0**, Leidhold, C.
Mull (Argyll).—**0**, Thomas, Herbert H.; **2**, Thomas, Herbert H., 2.
Multituberculata.—**2**, Hennig, E., 5.
Münchberg (Bavaria).—**2**, Ahrens, W.; Seidlitz, W. v.
Mundakayam (Travancore). — **0**, Chacko, I. C.
Mundesley (Norfolk).—**0**, Moir, J. R., 3.
Mungana (Queensl.).—**0**, Jensen, H. I., 2.
Munich (Bavaria).—**2**, Groth, P.
Munster (Alsace).—**0**, Klæhn, H.
Münsterland (Westphalia).—**0**, Wegner, T.; **1**, Bærtling, R., 4; Becker, J.; **2**, Becker, J.

Murau (Styria).—**1**, Tornquist, A., 2.
Murchison (W. Austr.).—**1**, Feldtmann, F. R., 4.
Murcia (Spain).—**1**, Kindelan, V.
Murray R. (Vict.).—**0**, Victoria, 3.
Murray R. area (S. Austr.).—**0**, Howchin, W., 3 ; South Australia, 3.
Murray R. system (S.-E. Australia).—**0**, South Australia, 4.
Mürztal (Styria).—**0**, Stiny, J.
Musashino formation, Japan.—**0** & **2**, Yokoyama, M.
Muschelkalk, France.—**0**, Benecke, E. W. ; Boden, K., 2 ; Wagner, G. ; Werveke, L. v., 15 ; **1**, Kilian, W. ; **2**, Kraus, E., 3.
——, Germany.—**0**, Bræuhæuser, M.; Gaiser, E. ; Schuster, M. ; Wagner, G., 1, 2 ; Werveke, L. v., 15 ; **1**, Bender, G. ; Naumann, E., 6, 8 ; Picard, E. ; Riedel, A. ; Stolley, E., 3 ; **2**, Deecke, W., 5 ; Schlagintweit, O., 2.
——, Luxemburg.—**0**, Werveke, L. v., 15 ; **1** & **2**, Gœtz, C.
'Muschel' - sandstone, Alsace - Lorraine.—**2**, Kraus, E., 3.
Muscovite.—**0**, Schreiter, R. ; **2**, Bœke, H. E., 6 ; Clark, R. W. ; Johnsen, A., 2 ; Kalb, G., 3.
——,Wallachia.—**2**, Rotman, D., 3, 4.
Museums, AMERICAN NATURAL HISTORY.—**1**, Osborn, H. F., 5.
——, Basel.—**1**, Sarasin, F.
——, Bergen.—**1**, Kolderup, H.
——, BRITISH.—**0**, Smith, R. A.
——, —— (N.H.).—**0**, Prior, G. T., 2 ; **1**, Edwards, W. N., 3 ; Lang, W. D. ; Woodward, A. S., 4; **2**, British Museum, 1–5 ; Lang, W. D.
——, Budapest.—**2**, Hungary.
——, ILLINOIS STATE.—**1**, Crook, A. R.
——, La Plata.—**1**, Kantor, M.
——, Mexican Geological Institute.—**0**, Paredes, T., 3.
——, NEW YORK STATE.—**0**, Gardner, H. F. ; **1**, Clarke, J. M. ; **2**, Clarke, J. M., 1, 2.
——, Perth.—**2**, Asher, J.
—— OF PRACTICAL GEOLOGY. — **0**, Bromehead, C. E. N. ; **2**, Great Britain, 7.
——, Princeton.—**0**, Sinclair, W. J.
——, SENCKENBERGISCH.—**0**, Drevermann, F., 2 ; Richter, R. ; Schauf, W.
——, S. AFRICAN.—**0**, Péringuey, L. ; **1**, South Africa, 2.
——, Tenby.—**0**, Leach, A. L.
——, Tübingen University.—**0**, Hennig, E., 6.
——, UNITED STATES NATIONAL.—**0**, Foshag, W. F., 7 ; Shannon, E. V., 10 ; **1**, United States, 13 ; **2**, Foshag, W. F., 2 ; Merrill, G. P., 8 ; Shannon, E. V., 3.
Museums, Vienna.—**0**, Pia, J. v., 3.
——, Wellington (N.Z.).—**2**, New Zealand, 1–5.
——, vertebrates in.—**1**, Kormos, T., 4.
Musical sands. *See* Sands.
Musso (Lombardy).—**1**, Repossi, E., 3.
Mustiala (Finland).—**1**, Aarnio, B., 2.
Mutue Fides (Transvaal).—**1**, Wagner, P. A., 5.
Mya.—**0**, Bœhm, J., 6.
Myadesma.—**2**, Clark, B. L., 2.
Mycetophilidæ.—**0**, Meunier, F., 3 ; **2**, Meunier, F.
Myctophum.—**2**, Arambourg, C., 1, 2.
Myliobatis.—**1**, Stefano, G. de, 6.
Mylodon.—**0**, Stock, C., 4.
Mylonite.—**1**, Fournier, E.
——, France.—**0**, Termier, P., 1, 2, 6.
——, Sweden.—**1**, Backlund, H. G., 2.
Mynydd Prescelly (Pembrokesh.).—**2**, Part, G. M.
Myoconcha.—**1**, Bœhm, J.
Myodes.—**1**, Dubois, G., 1, 5.
Myoxoidea.—**0**, Sœrgel, W., 4.
Myponga (S. Austr.).—**1**, Jack, R. L., 4.
Myrmecioptychium.—**0**, Fritzsche, H.
Myrmekite.—**0**, Sederholm, J. J.
Mysidacea. *See* Schizopoda.
Mysidioptera.—**1**, Rozlozsnik, P., 6.
Mysore (India).—**0**, Iyengar, P. S., 1, 2 ; Iyer, V. S. S. ; Jaya Ram, B. ; Vredenburg, E. W., 2.
—— (——), mineral production.—**0**, **1** & **2**, Mysore.
—— (——), mineral resources.—**0**, Balaji Rao, B., 1, 2 ; Moore, E. S. ; Rao, L. S. ; Venkataramiah, B. N.; **1**, Brown, J. C., 6 ; Mysore, 2 ; **2**, Mysore, 2.
Mystriosuchus.—**0**, Drevermann, F., 4.
Mythen Mts. (Schwyz).—**2**, Heim, Albert, 2, 3.
Mytilus.—**1**, Douvillé, H., 22.

N

'Nagelfluh'.—**2**, Lutzeier, H.
Nagybánya (Transylvania).—**1**, Pálfy, M. v., 4, 6.
Nahecaris.—**1**, Jækel, O., 2 ; **2**, Hennig, E., 6.
Namaqualand (Cape Prov.). — **0**, Rogers, A. W.
Nambino valley (Trentino). — **0**, Schwinner, R., 2.
Namib Desert (S.-W. Afr.).—**2**, Kaiser, E., 2 ; Wagner, P. A., 2.
Namma (N. Shan States).—**2**, Moldenke, E.
Namur (Belgium).—**0**, Fourmarier, P., 6 ; **1**, Bellière, M., 3 ; Stainier, X., 3 ; **2**, Kaisin, F. ; Moresséc, G.

Namur (Belgium), Palæozoic. — **1**, Bellière, M., 2 ; Maillieux, E., 1, 3 ; Stainier X., 6 ; **2**, Demanet, F. ; Kaisin, F., 2.
Namyau beds, Shan States.—**1**, Buckman, S. S.
Nangkita (S. Austr.).—**1**, Ward, L. K. 6.
Nantes (Loire-Inférieure).—**2**, Péneau, J., 4.
Nappes, Africa (N.W.).—**0**, Savornin, J. ; **1**, Gentil, L., 5 ; Joleaud, L., 6.
——, Alps.—**0**, Hummel, K. ; Wilckens, O., 4 ; **1**, Staub, R., 4 ; **2**, Termier, P., 5.
——, France.—**1**, Termier, P., 4, 5 ; **2**, Barrabé, L. ; Lanquine, A. ; Termier, P., 7.
——, French Indo-China.—**2**, Bourret, R., 2.
——, Highlands (S.W.).—**2**, Bailey, E. B.
——, Pyrenees.—**0**, Bertrand, L. ; **2**, Bertrand, L., 3.
——, Romania.—**2**, Mrazec, L., 10.
Narangba (Queensl.).—**2**, Morton, C. C., 2.
Narracan South (Vict.).—**2**, Whitelaw, O. A. L., 2.
Nassau (Germany). — **0**, Schlossmacher, K. ; **1**, Lauterbach, W. ; Leppla, A., 2, 6 ; Schlossmacher, K. ; Winterfeld, F. ; **2**, Michels, F.
—— (——), Devonian.—**0**, Fuchs, A.; **1**, Ahlburg, J., 1, 3 ; Fuchs, A. ; Leppla, A., 1, 3 ; **2**, Meyer, H. L. F., 3.
—— (——). *See also* Hesse-Nassau.
Natal.—**0**, Du Toit, A. L., 1, 3 ; Humphrey, W. A., 1, 2 ; **1**, Du Toit, A. L. ; **2**, Hatch, F. H.
——, mineral resources.—**0**, Anon., 18 ; Steart, F. A. ; **1**, Du Toit, A. L., 3 ; Steart, F. A. ; Wybergh, W. ; **2**, Mellor, E. T., 3.
Natrolite.—**2**, Billows, E. ; Sigmund, A. ; Stoklossa, G.
Natural steam, Tuscany.—**0**, Anon., 27.
Nauheim. *See* Bad-Nauheim.
Naumannite.—**0**, Shannon, E. V., 3, 14 ; **2**, Shannon, E. V., 7.
Nautiloidea.—**0**, Grabau, A. W., 6 ; **1**, Schuh, F. ; **2**, Chapman, F., 4 ; Frech, F., 3 ; Prell, H., 2 ; Ruedemann, R., 1, 2 ; Woodward, B. B., 3.
——, Cambrian.—**2**, Kiær, J., 5.
——, Carboniferous.—**0**, Hind, W., 2; Jackson, J. W. ; **2**, Morningstar, H.
——, Cretaceous.—**0**, Eck, O. ; **1**, Douvillé, H., 3 ; Spath, L. F.
——, Culm.—**1**, Hueffner, E.
——, Devonian.—**1**, Dahmer, G., 2 ; Lieber, H. ; **2**, Greene, G. K. ; Reed, F. R. C., 2 ; Shannon, W. G. St. J.
Nautiloidea, Eocene. — **0**, Fabiani, R., 7 ; **1**, Douvillé, H., 20 ; **2**, Leriche, M., 7.
——, Jurassic.—**0**, Spengler, E., 3 ; **1**, Douvillé, H., 3 ; **2**, Krumbeck, L., 6 ; Steuer, A.
——, Lias.—**1**, Crick, G. C.
——, Ordovician.—**0**, Bassler, R. S. ; Reed, F. R. C. ; **1**, Bekker, H. ; **2**, Holtedahl, O., 1, 3.
——, Palæozoic.—**0**, Mansuy, H., 3, 5.
——, Permian.—**1**, Haaniel, C. A.
——, Permo-Carboniferous.—**2**, Colani, M.
——, Silurian.—**1**, Ruedemann, R. ; **2**, Greene, G. K. ; Ruedemann, R., 6.
——, Trias.—**1**, Buelow-Trummer, E. v.; Diener, C. ; Jaworski, E. ; Mariani, E., 11 ; Rassmuss, H. ; Welter, O. A., 1, 2 ; **2**, Toni, A. de.
Nautilus.—**1**, Crick, G. C.
Navajo country (S.W. United States). —**0**, Gregory, H. E., 1, 2.
Navarra (Spain).—**0**, Palacios, P., 1, 2.
Naxos I. (Greece).—**1**, Négris, P., 4.
Nayook (Vict.).—**2**, Ower, L. H.
Near East. *See* Asia Minor, Iraq, *&c.*
Nebraska (U.S.A.).—**0**, Grover, N. C., 2, 3 ; Meinzer, O. E., 3 ; **1**, Hicks, W. B. ; **2**, O'Harra, C. C.
Nebraskan gumbotil, Iowa.—**1**, Kay, G. F.
—— till, Iowa.—**2**, Kay, G. F., 3.
Nebular theory.—**2**, Coleman, A. P., 4 ; Joly, J., 3 ; Wright, W. B.
Neckar R. (S.W. Germany).—**0**, Schuermann, E.
Neckar R. area (S.W. Germany).—**0**, Bræuhæuser, M. ; **2**, Freudenberg, W.
Necks. *See* Tuff-necks, *&* Volcanic necks.
Negri Sembilan (F.M.S.).—**2**, Willbourn, E. S.
Neidenburg (E. Prussia).—**1**, Tornau, F., 3.
Neisse (Silesia).—**1**, Friedensburg, F.
Neithea.—**1**, Bœhm, J., 10.
Nelchina (Alaska).—**0**, Chapin, T., 3.
Nelson (N.Z.).—**0**, Morgan, P. G., 4 ; **1**, Henderson, J., 2 ; Ongley, M. ; **2**, Henderson, J., 2 ; Morgan, P. G., 5, 9.
Németpróna (Slovakia).—**1**, Vigh, J., 3.
Nemorhœdus.—**2**, Schaub, S., 2.
Nenana (Alaska).—**0**, Martin, G. C.
Nene R. (Northants).—**0**, Thompson, B.
Neocalamites.—**1**, Erdtman, G.
Neocomian, Argentina.—**2**, Gerth, H.
——, Berkshire.—**0**, Davey, E. C.
——, Italy.—**0**, Rodighiero, A. ; **1**, Scalia, S. ; **2**, Rodighiero, A.
——, Tyrol. — **2**, Furlani-Cornelius, M., 1, 2.

Neogene, Africa (N.W.).—**0**, Gentil, L.; **1**, Joleaud, L., 5.
——, Argentina.—**0**, Witte, L.
——, Austria. — **0**, Aigner, A.; Krulla, R.
——, Burma.—**2**, Cotter, G. de P.
——, Holland.—**2**, Leriche, M.
——, Iraq.—**2**, Pascoe, E. H.
——, Japan.—**2**, Takahashi, J.
——, Macedonia.—**2**, Oppenheim, P., 9; Wurm, A.
——, Slovakia.—**1**, Ferenczi, S.
——, S. Australia.—**0**, Howchin, W., 3.
——, Transylvania.—**1**, Zalányi, B., 4.
——, United States.—**0**, Collier, A. J., 8; English, W. A.; **1**, Darton, N. H.
——, Württemberg.—**2**, Dietrich, W. O., 5.
Neohyænodon.—**2**, Thorpe, M. R., 3.
Neolenus.—**2**, Walcott, C. D., 2, 3.
Neolicaphrium.—**2**, Frenguelli, G., 2.
Neolithic.—**1**, Baudouin, M.
——, Argentina.—**2**, Ameghino, F.
——, Belgium.—**1**, Rutot, A., 6.
——, Essex.—**2**, Morris, G.
——, Pas-de-Calais.—**1**, Galle, L.
Neoschwagerina-beds, Dalmatia.—**0**, Lange, E.
Nepean R. area (N.S.W.).—**1**, Osborne, G. D.
Nephelinite, Angola.—**0**, Holmes, A., 4.
——, melilite-, Rheinland. — **2**, Brauns, R., 13.
Nephelite.—**0**, Cesàro, G.; **2**, Brauns, R., 14; Macgregor, A. G.; Rinne, F., 8.
—— -basalt. *See* Basalt.
—— -porphyry. *See* Porphyry.
—— rocks, Transvaal.—**2**, Shand, S. J.
—— -syenite. *See* Syenite.
Nephelite minerals.—**1**, Zambonini, F.
Nephrite, Basilicata. — **2**, Martius, S.
——, Germany.—**2**, Beutell, A., 9; Fromme, J., 1, 3; Uhlig, J., 2.
——, Graubünden.—**2**, Schmidt, C., 3.
——, Quebec.—**1**, Welter, O. A., 3.
Nephrodium.—**0**, Fritel, P. H., 2.
Nephrops.—**2**, Rathbun, M. J.
Neratovic (Bohemia).—**0**, Woldřich, J.
Neritina.—**0**, Dalimier, H.
Nerone, Mte. (Marche).—**1**, Principi, P.
Netze valley (Germany-Poland).—**1**, Korn, J., 6.
Neuberg (Styria).—**2**, Redlich, K. A., 4.
Neuchâtel (Switzerland).—**0**, Musy, M.; **1**, Amann, J., 2; Guillarmod, J. J.; **2**, Buxtorf, A.; Dubois, A.; Lagotala, H., 2.
Neuchâtel, L., area (Switzerland).—**2**, Pittard, E.
Neuhaldensleben (Prussia).—**1**, Wieegrs [Wiegers], F.
Neuhauser beds, Lower Austria.—**0**, Trauth, F., 2.
Neukuhren (E. Prussia).—**1**, Tornau, F.
Neumark (Germany).—**0**, Oppenheim, P., 9.
Neunkirchen (Hesse).—**0**, Klemm, G., 11.
Neuquén (Argentina). —**2**, Windhausen, A.
Neuropterida.—**1**, Gothan, W., 2.
Neuss (Rheinland).—**1**, Quaas, A., 1, 4.
Nevada (U.S.A.).—**0**, Ferguson, H. G.; Hill, J. M.; Knopf, A., 5; Spencer, A. C.; **1**, Hastings, J. B.; **2**, Longwell, C. R.; Noble, L. F.
—— (——), ore-deposits.—**0**, Bastin, E. S., 2; Ferguson, H. G., 2; Knopf, A., 1, 3; Pardee, J. T., 7; United States, 4–6, 8; **1**, Ferguson, H. G., 2; **2**, Bastin, E. S.; Clark, C. W., 2; Ferguson, H. G.; Hess, F. L.; Knopf, A.; United States, 8, 10.
—— (——), silver.—**1**, Knopf, A.; **2**, Knopf, A., 2; Shannon, E. V., 13.
—— (——), stratigraphy.—**1**, Longwell, C. R.; Stock, C.; **2**, Raymond, P. E., 3.
—— (——), water.—**0**, Grover, N. C., 2–4; Meinzer, O. E., 2; Waring, G. A., 2, 4; **1**, Clark, W. O.; **2**, Baldwin, G. C.; Grover, N. C., 1, 2.
New Brunswick.—**0**, Bailey, L. W.; **1**, Hayes, A. O., 1, 2; Wright, W. J.
—— ——, mineral resources.—**0**, Gwillim, J. C., 2, 7; Uglow, W. L., 1, 2; **1**, Young, G. A.; **2**, McCann, W. S., 2.
—— ——, Palæozoic.—**0**, **1** & **2**, Matthew, G. F.
New Caledonia.—**2**, Sarasin, F.
New England (U.S.A.).—**0**, Fairchild, H. L., 1, 10; **2**, Antevs, E., 3; Foye, W. G., 2. *See also* New Hampshire, *&c.*
New Guinea. — **1**, Hæhnel, O.; **2**, Feuilletau de Bruyn, W. K. H.; Stanley, E. R.
—— —— (British).—**2**, Great Britain, 24.
—— —— (Dutch).—**2**, Thurnwald, R.
—— ——. *See also* Papua.
New Hampshire (U.S.A.).—**0**, Goldthwait, J. W., 1–3; Katz, F. J., 1, 2; Wandke, A.; **1**, Lane, A. C., 1, 2; Sayles, R. W.; **2**, Smith, E. S. C.; Wandke, A.
—— —— (——), water.—**0**, Grover, N. C., 3–5; **2**, Covert, C. C.; Crosby, I. B.; Grover, N. C., 3.

New Hebrides (Pacific).—**0**, Frater, M. ; Gregory, J. W.
New Jersey (U.S.A.).—**0**, Mansfield, G. R., 4 ; Wherry, E. T., 6 ; **1**, Bascom, F., 2 ; Hinds, N. E. A. ; Keeley, F. J., 2 ; **2**, Aurousseau, M.
—— —— (——), annual report.—**0**, **1** & **2**, New Jersey.
—— —— (——), mineral resources. —**2**, Black, G. F. ; Ries, H. ; Twitchell, M. W.
—— —— (——), minerals.—**2**, Larsen, E. S., 2, 3 ; Lewis, J. V., 2 ; Shannon, E. V., 15.
New Malden (Surrey).—**2**, Wrigley, A., 2.
New Mexico (U.S.A.).—**0**, Darton, N. H., 7 ; Semmes, D. R., 2 ; **1**, Bauer, C. M., 2 ; Ferguson, H. G. ; Smythe, D. D. ; **2**, Hills, R. C.
—— —— (——), geology.—**0**, Darton, N. H., 2 ; Gregory, H. E., 2 ; Keyes, C. R., 7 ; Lee, W. T., 4 ; Winchester, D. E., 3 ; **1**, Gruner, J. W. ; **2**, Darton, N. H., 2.
—— —— (——), ore-deposits. — **0**, Jones, E. L., *fil*, 2 ; Larsen, E. S., 3 ; United States, 5, 6, 8 ; **1**, Scott, D. B. ; United States ; **2**, Hess, F. L. ; Hill, J. M. ; United States, 8, 10.
—— —— (——), Palæozoic. — **0**, Bœse, E. ; Darton, N. H. ; Keyes, C. R., 6 ; Lee, W. T., 3.
—— —— (——), stratigraphy.—**0**, Baker, C. L. ; **1**, Bauer, C. M. ; Rich, J. L., 2 ; **2**, Gilmore, C. W., 3.
—— —— (——), water.—**0**, Gregory, H. E. ; Grover, N. C., 2–5 ; Herron, W. H., 3, 4 ; Schwennesen, A. T., 1, 2.
New South Wales.—**0**, Benson, W. N., 2 ; Harper, L. F., 4 ; Shearsby, A. J. ; Smith, H. G. ; **1**, Osborne, G. D. ; Steel, T. ; **2**, Andrews, E. C., 2 ; David, T. W. E., 2 ; Harper, L. F., 4 ; Mingaye, J. C. H. ; Suessmilch, C. A.
—— —— ——, Carboniferous. — **1**, Benson, W. N., 2 ; Osborne, G. D., 2; Sussmilch, C. A. ; **2**, Osborne, G. D.
—— —— ——, coal.—**0**, Harper, L. F., 6, 7 ; Jones, L., 2, 4 ; **2**, Morrison, M., 1–3, 5, 6 ; Robertson, J. R. M.
—— —— ——, geological survey.— **0** & **2**, New South Wales, 2.
—— —— ——, gold.—**0**, Jones, L. ; Morrison, M., 4, 5 ; **1**, Walcott, R. H. ; **2**, Harper, L. F., 2, 3, 5 ; Jones, L. J., 2 ; Morrison, M., 4, 7.
—— —— ——, meteorites. — **1**, Tchirvinsky, P. ; White, H. P.
—— —— ——, mineral production. —**0** & **2**, New South Wales.
—— —— ——, mineral resources.— **0**, Morrison, M. ; **2**, Jones, L. J., 3 ; Morrison, M., 8–10.
New South Wales, minerals.—**1**, Card, G. W., 1, 2.
—— —— ——, opal.—**0**, Morrison, M., 6 ; Skeats, E. W., 2 ; **2**, Chapman, F., 5.
—— —— ——, ore-deposits. — **0**, Harper, L. F., 1–3, 5, 8 ; Morrison, M., 2 ; Smith, G. ; **1**, Dun. W. S. ; **2**, Andrews, E. C. ; Harper, L. F. ; Jones, L. J.
—— —— ——, water.—**0**, Jones, L., 3 ; Morrison, M., 3 ; South Australia, 4.
New York (U.S.A.).—**0**, Alling, H. L.; Berkey, C. P. ; Chadwick, G. H., 1, 2 ; Miller, W. J., 1, 2 ; Stoller, J. H. ; **1**, Newland, D. H., 2 ; **2**, Alling, H. L. ; Berkey, C. P.; Kemp, J. F. ; Long, E. T.
—— —— (——), Devonian. — **0**, Chadwick, G. H., 4, 5 ; Grabau, A. W., 8 ; **1**, Eaton, H. N.
—— —— (——), glaciation. — **0**, Giles, A. W. ; Merwin, H. E. ; Stoller, J. H., 2 ; Upham, W., 2 ; **1**, Coleman, A. P. ; **2**, Engeln, O. D. v.
—— —— (——), igneous rocks.—**0**, Miller, W. J., 3, 5 ; **1** & **2**, Miller, W. J.
—— —— (——), iron.—**0**, Miller, W. J., 4 ; Newland, D. H. ; **1**, Miller, W. J., 2.
—— —— (——), minerals.—**1**, Agar, W. M. ; Clarke, N. T. ; Miller, W. J., 3 ; **2**, Agar, W. M. ; Giles, A. W.
—— —— (——), Palæozoic. — **0**, Chadwick, G. H., 3, 6 ; Clark, T. H. ; **2**, Ruedemann, R., 2.
—— —— (——), Pleistocene. — **0**, Fairchild, H. L., 2 ; **1**, Goldring, W.
—— —— (——), water.—**0**, Fairchild, H. L., 9 ; Grover, N. C., 2–6 ; Shumaker, J. B. ; **2**, Covert, C. C. ; Grover, N. C., 3.
New York City area.—**0**, Lobeck, A. K.
NEW YORK STATE MUSEUM. *See* Museums.
New Zealand.—**0**, Bartrum, J. A., 3 ; Hardcastle, J. ; Morgan, P. G. ; Speight, R., 4 ; Wall, A. ; **1**, Howchin, W., 8 ; Jaggar, T. A. ; Speight, R. ; **2**, New Zealand, 6 ; Park, J., 3.
—— ——, geological survey. — **1**, New Zealand ; **2**, New Zealand, 12, 13.
—— ——, geology.—**0**, Wilckens, O.; **1**, Benson, W. N. ; Park, J. ; **2**, Benson, W. N. ; Morgan, P. G., 12.
—— ——, Mesozoic.—**0**, Arber, E. A. N. ; Wilckens, O., 9 ; **1**, Trechmann, C. T. ; **2**, Vaughan, T. W.
—— ——, mineral production.—**0**, New Zealand ; **2**, New Zealand, 10, 11.

New Zealand, mineral resources.—**0**, Donovan, W.; McLennan, J. C., 2; Morgan, P. G., 2, 3, 6, 8; New Zealand, 2; **2**, Great Britain, 24; Henderson, J., 4; New Zealand, 7, 8.
—— ——, Tertiary.—**0**, Marshall, P., 1, 4; Thomson, J. A., 3; **1**, Suter, H.; **2**, Speight, R., 4; Suter, Henry.
—— ——. *See also* Auckland, North Island, *&c.*
Newark system, United States (E.).—**0**, Dorsey, G. E.; **2**, Foye, W. G., 2.
Newberria.—**1**, Dœring, A.
—— -beds, Eifel.—**1**, Quiring, H., 3.
Newfoundland.—**0**, Howell, B. F.; **1**, Daly, R. A., 2, 3; Schuchert, C., 4; Steidtmann, E.; **2**, Brunton, S., 2; Landell-Mills, T.
——, iron.—**0**, Canada, 4; Chambers, R. E.; **2**, Great Britain, 22.
Newquay (Cornwall).—**2**, Woodward, B. B., 2.
Newton Abbot (Devon).—**1**, Shannon, W. G. St. J.; **2**, Shannon, W. G. St. J., 2.
Ngotshe (Natal).—**0**, Humphrey, W. A., 2.
Niagara Falls.—**0**, Spencer, J. W.; Wilckens, O., 6.
Niagaran, Michigan.—**1**, Ehlers, G. M.
——, Ontario.—**1**, Spencer, J. W.
Nicaragua.—**2**, Sapper, K.
Niccolite.—**1**, Schlossmacher, K., 2.
Nice (Alpes-Maritimes).—**1**, Maury, E., 2.
Nickel.—**0**, Rosenlund, A. L.; United States, 4, 6, 8; Vogt, J. H. L., 2; **2**, Dittler, E., 3, 5; Great Britain, 16.
——, Alaska.—**0**, Overbeck, R. M., 2; **1**, Overbeck, R. M.
——, Canada.—**2**, Simmersbach, B., 4.
——, Manitoba.—**1**, McCann, W. S.
——, Ontario.—**0**, Bell, J. M.; Canada, 2; Lindgren, W., 4; **1**, Canada, 6.
——, Prussia.—**1**, Simmersbach, B., 4.
——, Salzburg.—**2**, Mayr, C.
——, Scotland.—**1**, Wilson, G. V.
——, Spain.—**0**, Orueta, D. de.
——, United States. — **2**, United States, 8. 10.
—— -arsenic mineral.—**2**, Hackl, I. O.
—— minerals.—**0**, Emmons, W. H.
—— silicates.—**2**, Dittler, E., 5.
Nicolai-Pawda (Perm).—**0**, Duparc, L., 3.
Nicole (Lot-et-Garonne).—**0**, Labrie, J.
Nideggen (Rheinland).—**1**, Quaas, A., 2, 3.
Nieder Tauern (Austria). — **0**, Heritsch, F., 3.
Niederlausitz (Germany).—**0**, Keilhack, K., 3.
Nienhagen (Lippe).—**1**, Stoller, J., 6.
Nièvre (France).—**1**, Grossouvre, A. de, 3; **2**, Termier, P., 6. *See also* Morvan Mts.
Niger. *See* Upper Senegal & Niger.
Nigeria.—**0**, Falconer, J. D.; **1**, Falconer, J. D., 1, 2; **2**, Gordon-Thomas, G.; Migeod, F. W. H.; Wilson, R. C., 4.
——, igneous rocks.—**0**, Williams, G. W.; **1**, Mesch, D.; Williams, G. W.
——, mineral resources.—**0**, Hayes, J. S.; Lush, F. M.; **1**, Reinheimer, S.; **2**, MacLachlin, D. K. F.; Pope, W. A.; Whitehead, P. W.
——, volcanic eruption.—**2**, Anon., 30; Cameron, H. S.; Ruxton, F. H.
Nile R. area.—**0**, Arldt, T.
Nile Valley.—**0**, Blanckenhorn, M., 2; **1**, Hume, W. F., 4.
—— —— (Upper).—**0**, Holmes, A., 3; Stigand, C. H.
Nillumbik (Vict.).—**0**, Howitt, A. M.
Nilssonia.—**1**, Florin, R., 2.
Nimptsch (Silesia).—**1**, Tietze, O., 1, 2, 8.
Ningi Hills (Nigeria).—**0**, Falconer, J. D.; Williams, G. W.; **1**, Williams, G. W.
Nitrates.—**1**, Imperial Mineral Resources Bureau, 10; Lepierre, C.
——, Chile.—**0**, Whitehead, W. L., 2; **1**, Anon., 18.
——, Sahara.—**0**, Guillaume, —.
——. *See also* Potassium nitrate.
Nive valley (Basses-Pyrénées).—**1**, Passemard, E.
Noarlunga (S. Austr.).—**1**, Winton, L. J., 5.
Nöckelberg (Salzburg).—**2**, Mayr, C.
Nodosaurus.—**1**, Lull, R. S.
Nodules, Northamptonshire. — **2**, Thompson, B., 2.
——, S. Australia.—**0**, Tilley, C. E.
——, Württemberg.—**1**, Schmidt, M., 4.
——, phosphate, Victoria.—**2**, Howitt, A. M., 2.
——. *See also* 'Knollensteine.'
Nœggerathiopsis.—**0**, Zalessky, M. D., 2; **1**, Walkom, A. B., 3.
Nograd (Hungary).—**0**, Noszky, E.; **1**, Noszky, E., 1–3; Schréter, Z., 5.
Noire, Montagne. *See* Montagne Noire.
Nomenclature, Alpine nappes.—**1**, Staub, R., 4.
——, ammonoidea.—**1**, Diener, C., 6; Nicolesco, C.; **2**, Diener, C., 4.
——, animalia.—**2**, Sherborn, C. D., 2.
——, anthophyllites. — **1**, Shannon, E. V., 7.
——, Appalachian Coal Measures.—**2**, Ashley, G. H.
——, aves.—**1**, Lambrecht, K.

Nomenclature, brachiopoda. — **0**, Buckman, S. S., 2, 3 ; North, F. J. ; Thomson, J. A., 6 ; **1**, Diener, C., 4.
——, of breccias & conglomerates.—**1**, Howchin, W., 4.
——, Carboniferous.—**2**, Watts, W. W.
——, carnivora.—**2**, Thorpe, M. R.
——, clastic sediments.—**2**, Wentworth, C. K., 2.
——, crinoidea.—**0**, Wanner, J., 2 ; **2**, Schmidt, W. E.
——, Cretaceous bryozoa.—**1** & **2**, Lang, W. D.
——, deinosauria. — **0**, Nopcsa, F., **2**, Hennig, E., 3 ; Nopcsa, F., 4.
——, dibranchiata. — **1**, Buelow-Trummer, E. v., 2.
——, echinoderma.—**1**, Lambert, J., 2.
——, 'Flysch.'—**1**, Segrè, C.
——, gastropoda.—**0**, Dall, W. H. ; Suter, H., 1, 2 ; **1**, Lambert, J., 2.
——, geological.—**2**, Smith, G. O.
——, igneous rocks.—**0**, Lacroix, A., 2.
——, 'inversion.'—**0**, Ferguson, J. B.
——, keratophyres.—**2**, Wells, A. K.
——, lamellibranchia.—**0**, Suter, H., 1, 2 ; **1**, Lambert, J., 2.
——, mineral deposits.—**2**, Lindgren, W., 3.
——, minerals.—**1**, Ford, W. E. ; **1**, Geijer, P. ; Shannon, E. V., 3 ; Wherry, E. T., 6 ; **2**, Spencer, L. J.
——, palæontology.—**1**, Bather, F. A. ; **2**, Hilber, V.
——, Palæozoic insecta.—**2**, Handlirsch, A.
——, of petrology.—**0**, Holmes, A., 14 ; **1**, Shand, S. J. ; Tyrrell, G. W. ; Watts, W. W., 4.
——, plantæ.—**0**, Knowlton, F. H. ; **1**, Nagel, K. ; **2**, Jongmans, W. ; Nagalhard, K.
——, rocks.—**1**, Tieje, A. J. ; **2**, Knapp, A.
——, 'salpausselkä.'—**1**, Ramsay, W., 4.
——, Spanish mining terms. — **1**, Halse, E.
——, stratigraphical. — **1**, Maillieux, E., 5.
——, Swedish Palæozoic.—**0**, Gavelin, A., 2 ; Grœnwall, K. A., 1, 2.
——, tectonics.—**1**, Oldham, R. D., 2 ; **2**, Haarmann, E., 3 ; Murgoci, G., 3.
——, Triassic cephalopoda. — **2**, Diener, C., 2.
——, Triassic cnidaria.—**1**, Diener, C., 5.
——, Valentian.—**1**, Jones, O. T.
——, vein-rocks.—**2**, Holmquist, P. J.
'Nomogramme,' in crystallographic use.—**2**, Eitel, W., 5.
Non, Val di (Trentino).—**0**, Fabiani, R., 6.
Nonsberg (Trentino).—**1**, Spitz, A., 2.
Nord (France), Coal Measures. — **1**, Barrois, C. ; Bertrand, P., 3 ; Pruvost, P., 3, 4, 6 ; Renier, A., 3.
—— (——), Eocene.—**0**, Dubois, G., 2 ; **1**, Leriche, M., 2, 4 ; **2**, Leriche, M., 7.
—— (——), stratigraphy.—**0**, Cornet, J., 4 ; **1**, Briquet, A., 2 ; Gosselet, J., 2 ; Pruvost, P., 2.
Nordfolla (Norway).—**1**, Holmsen, G., 2.
Nördlinger Ries (Bavaria).—**2**, Kranz, W., 6 ; Krumbeck, L., 5.
Norfolk.—**0**, Bromehead, C. E. N., 2 ; Pringle, J. ; **2**, Boswell, P. G. H., 4.
——, prehistory.—**0**, Lankester, E. R. ; Moir, J. R., 1, 3 ; **1**, Freudenberg, W. ; Layard, N. F. ; Moir, J. R., 4–6 ; Shetelig, H., 2 ; **2**, Moir, J. R.
——, water.—**1**, Whitaker, W. ; **2**, Sutton, L.
Norite, Norway.—**2**, Foslie, S., 3 ; Goldschmidt, V. M., 6, 10.
——, Saskatchewan.—**1**, Alcock, F. J., 5.
——, Sierra Leone.—**1**, Dixey, F. ; **2**, Dixey, F., 4.
——, quartz-, New Zealand.—**0**, Bartrum, J. A., 4.
—— -aplite, Sierra Leone.—**2**, Dixey, F., 4.
Normanby (Queensl.).—**1**, Morton, C. C.
Normandy.—**1**, Nicou, P., 2 ; **2**, Chevallier, A. ; Nicou, P.
Norrbotten (Sweden).—**2**, Geijer, P., 2, 4, 5.
North Atlantic. *See* Atlantic Ocean.
North Carolina (U.S.A.).—**0**, Grover, N. C., 2–5 ; **1**, Grover, N. C., 2, 7 ; Lugeon, M., 7 ; **2**, Gordon, S. G., 1, 3.
—— —— (——), mineral resources. —**0**, Bayley, W. S. ; Keith, A. ; Osbon, C. C. ; **1**, Bayley, W. S. ; **2**, Knopf, E. B., 2.
North Dakota (U.S.A.).—**0**, Collier, A. J., 3 ; Stanton, T. W., 2 ; Todd, J. E. ; **1**, Hancock, E. T., 2 ; **2**, Bauer, C. M. ; Holden, E. F., 3.
—— —— (——), water.—**0**, Grover, N. C., 2, 4, 5 ; **1**, Grover, N. C., 3 ; **2**, Grover, N. C., 4, 5 ; Todd, J. E.
North Downs (Kent).—**2**, Leach, A. L.
North Ferriby (Yorks).—**2**, Bisat, W. S.
North Friesland (Schleswig). — **0**, Wolff, W., 2.
North Island (N.Z.).—**1**, Anon., 25.
North Saskatchewan R. area (Alberta).—**0**, Uglow, W. L., 5.
North Sea.—**1**, Whitehead, H.

North Sea area.—**1**, Gripp, K.; **2**, Kendall, P. F., 5; Oppenheim, P., 4.
North Thompson valley (B.C.).—**2**, Uglow, W. L.
North Wales. *See* Wales.
North-West Frontier Province (India).—**0**, Stuart, M.; **1**, Pascoe, E. H.; Stuart, M., 4; **2**, Reed, F. R. C., 2; Stuart, M.
North-West Territories (Canada).—**0**, Jones, W.; **1**, Bosworth, T. O., 3; Hume, G. S.; Kindle, E. M., 1, 4; **2**, Cameron, A. E.; Dawson, C. B.
Northampton (W. Austr.).—**1**, Feldtmann, F. R.; **2**, Feldtmann, F. R., 2.
Northampton sand, Northamptonshire.—**2**, Thompson, B., 2.
Northamptonshire. — **0**, Thompson, B.; **1**, Thompson, B., 1, 2; Richardson, L.; **2**, Thompson, B., 2, 3.
Northern Shan States (Burma).—**2**, Moldenke, E.
Northumberland. — **0**, Durham; Haselhurst, S. R., 1, 2; **1**, Woolacott, D.
Norwalk (Conn.).—**1**, Palmer, H. S.
Norway.—**0**, Carstens, C. W., 2; Kolderup, C. F.; Reusch, H.; Sverdrup, H. U.; Vogt, T.; Werenskiold, W.; **1**, Bugge, C.; **2**, Holtedahl, O., 2, 4, 9; Œyen, P. A., 2; Werenskiold, W.
——, bibliography.—**0**, Reusch, H., 3, 9; **2**, Reusch, H., 2.
——, changes of level.—**0**, Holmsen, G.; **1**, Bjorn, A.; Kaldhol, H.; **2**, Œyen, P. A., 7.
——, geology.—**0**, Goldschmidt, V. M., 1, 2; Holmsen, G., 2; Vogt, T., 4; **1**, Anon., 14; Holmsen, G., 2; Holtedahl, O., 3; Oxaal, J.; Rekstad, J.; **2**, Carstens, C. W., 3.
——, glaciation.—**0**, Holmsen, G., 3; Rekstad, J., 3; Reusch, H., 2, 6; Werenskiold, W., 3; **1**, Holmsen, G.; **2**, Reusch, H., 4.
——, igneous & metamorphic rocks.—**0**, **1** & **2**, Carstens, C. W.
——, mineral resources.—**0**, Bugge, C.; Harder, E. C., 2; Reusch, H., 10; Schetelig, J.; Vogt, J. H. L.; Woakes, E. R.; **1**, Vogt, J. H. L., 2; Vogt, T.; **2**, Bugge, C.; Holmsen, G.; Nicolai, G.; Reusch, H.
——, minerals.—**0**, Vogt, T., 3, 5; **2**, Andersen, O., 2; Goldschmidt, V. M., 17; Reusch, H., 5.
——, Palæozoic.—**0**, Holtedahl, O., 1, 9; **1**, Kiær, J.; **2**, Brœgger, W. C.; Kiær, J., 1, 5–7.
——, physiography.—**0**, Ahlmann, H. W., 2, 3; Hœgbom, A. G., 3; Oxaal, J., 1, 2; Rekstad, J.; Reusch, H., 5, 7; **1**, Holmboe, J., 2; Vogt, J. H. L.; **2**, Ahlmann, H. W.; Foslie, S.; Goldschmidt, V. M., 7.
Norway, prehistory.—**0**, Brœgger, W. C.; **1**, Shetelig, H., 1, 2; **2**, Petersen, J.; Petersen, T.
——, Quaternary.—**0**, Danielsen, D.; Œyen, P. A., 3; Reusch, H., 8; **1**, Œyen, P. A.; Reusch, H.
——, strand-lines.—**0**, Danielsen, D., 2; Rekstad, J., 2; Vogt, T., 2; **2**, Rekstad, J.; Reusch, H., 3.
—— (N.), magmatic differentiation. —**2**, Foslie, S., 3.
—— (S.).—**0**, Berg, G., 2; **2**, Falkenberg, O.; Goldschmidt, V. M., 2, 3, 6; Holtedahl, O., 6.
—— (S.E.), changes of level.—**2**, Antevs, E.
—— (S.W.), metamorphism. — **2**, Goldschmidt, V. M., 10.
—— (W.), peat-bogs.—**2**, Holmsen, G., 3.
——. *See also* Bergen, Oslo area, *&c.*
Nosean-phonolite. *See* Phonolite.
Notharctus.—**1**, Gregory, W. K.
Nothotherium.—**0**, Anon., 32.
Nothrotherium.—**0**, Stock, C.
Notocene, New Zealand.—**0**, Thomson, J. A., 5; **2**, Grange, L. I.
Notoungulata.—**1**, Roxo, M. G. de O.; **2**, Boule, M.
Nottinghamshire.—**0**, Fearnsides, W. G., 2; Ford, J.; Longden, G. A.; Richardson, W. A., 2; **1**, Richardson, W. A., 5; **2**, Anon., 23; Great Britain, 4; Mitton, H. E.
Nova Scotia.—**0**, Bailey, L. W.; Vickery, H. B.; **1**, Daly, R. A., 3; Faribault, E. R., 1, 2; Wright, W. J.; **2**, Churchill, F. C.; Walker, T. L., 2.
—— ——, Carboniferous.—**1**, Bell, W. A., 1, 2.
—— ——, eskers.—**0** & **2**, Prest, W. H.
—— ——, mineral resources.—**0**, Cole, L. H., 3; Gwillim, J. C., 2, 3, 8; Uglow, W. L., 3; **1**, Hayes, A. O., 1, 2.
Nova Zembla.—**2**, Holtedahl, O., 5, 7, 8.
Nowa Nowa (Vict.).—**0**, Ferguson, W. H., 3 [4]; Whitelaw, O. A. L.; **1**, Teale, E. O.
Nowitna (Alaska).—**0**, Eakin, H. M., 1, 4.
Nucleolitoida.—**0**, Hawkins, H. L., 2.
Nucula-marl, Misol I.—**1**, Jaworski, E.
Nuculella.—**2**, Vincent, E., 2.
Nuculites.—**0**, Williams, H. S.
Nuées ardentes, Mexico.—**1**, Waitz, P.
Nuits-Saint-Georges (Côte d'Or).—**2**, Derône, J.
Nullabor Plains (W. Austr.).—**0**, Maitland, A. G.
Nummulites.—**0**, Douvillé, H., 6; Zuber, R., 3; **1**, Douvillé, H., 12.
——, Eocene.—**0**, Abendanon, E. C.; **1**, Douvillé, H., 10, 16, 20; Regè, R.; **2**, Abrard, R.

Nummulites.—**0**, Douvillé, H., 6 ; **1**, Regè, R. ; **2**, Abrard, R.
—— *brongniarti* horizon, Venetia.—**0**, Fabiani, R., 4.
Nummulitic.—**1**, Rollier, L., 3.
——, Bulgaria.—**2**, Niculescu, C.
——, Corsica.—**1**, Hollande, D., 2 ; **2**, Maury, E., 2.
——, Dobrogea.—**2**, Macovei, G., 5.
——, Haute-Savoie.—**0**, Moret, L., 2.
——, Sea of Marmara area.—**0**, Arabu, N.
——, Sicily.—**1**, Scalia, S.
——, Spain (N.E.).—**2**, Douvillé, H., 8.
——, Switzerland.—**2**, Rollier, L.
—— conglomerates, Lwow.—**0**, Oppenheim, P., 2.
—— limestone, Marche.—**1**, Sangiorgi, D.
Nummulospermum.—**1**, Walkom, A. B.
Nurmes (Finland).—**1**, Wilkman, W. W.
Nutfield (Surrey).—**1**, Stamp, L. D., 4 ; **2**, Stamp, L. D., 2.
Nütterden (Rheinland).—**1**, Oppenheim, P.
Nyberget (Sweden).—**0**, Hœgbom, I.
‘ Nyirok ’ soils.—**1**, Treitz, P.
Nyland (Finland).—**1**, Frosterus, B., 2.

O

Oamuru (Otago).—**0**, Uttley, G. H., 3.
Oamuru system, New Zealand.—**0**, Marshall, P. ; Thomson, J. A., 3.
Oaxaca (Mexico).—**1**, Paredes, T. ; **2**, Fernández, R.
Oberdorf (Styria).—**2**, Redlich, K. A., 4.
Oberhalbstein (Graubünden). — **0**, Staub, R., 3 ; **2**, Mueller, F. P., 1, 3.
Oberland (Switzerland).—**0**, Collet, L. W., 2, 3 ; Poole, J. H. J. ; **1**, Beck, P., 2 ; Collet, L. W., 1, 2.
Obernberg (Tyrol).—**0**, Kerner, F. v., 15.
Obernkirchen (Prussia).—**2**, Brauns, R., 5.
Oberpfalz (Germany).—**0**, Laubmann, H. ; Lehner, A. ; Richarz, S. ; **1**, Kluepfel, W., 2 ; Laubmann, H. ; **2**, Schnittmann, F. X.
Oberreifenberg (Nassau).—**1**, Leppla, A.
Oberschönau (Thuringia).—**2**, Ullrich, E.
Oberstdorf (Swabia).—**2**, Richter, M., 2.
Obsidian.—**2**, Philipp, H. ; Tilley, C. E., 5.
——, California.—**2**, Rogers, A. F., 3.
——, Honduras-Mexico.—**2**, Washington, H. S., 2.
——, Portuguese E. Africa. — **1**, Young, R. B.
——, Victoria.—**0**, Skeats, E. W., 4.
Ocadia.—**1**, Stefano, J. de.
Ocean-currents, geochronology &.—**1**, Born, A., 2.
Ocean I. (Pacific).—**1**, Owen, L.
Oceania (Pacific).—**2**, Vaughan, T. W., 2.
Oceans, chemistry.—**0**, Clarke, F. W.
——, continents &.—**1**, Reid, H. F., 2 ; **2**, Fichot, E.
——, earliest.—**0**, Gorceix, C., 2.
——, earth-movements &.—**1**, Romieux, A. ; Suess, F. E.
——, earth's history &.—**1**, Dacqué, E.
——, formation & origin.—**0**, Paréjas, E. ; **2**, Wegener, A.
——, limeless.—**1**, Raymond, P. E., 2.
——, palæogeography &.—**0**, Termier, P., 4.
——, salinity.—**2**, Visher, S. S.
——. *See also* Seas.
Ochre, S. Australia.—**1**, Winton, L. J., 2.
——, Yorkshire.—**1**, Haworth, J.
——. *See also* Pigments.
Ocre, Mte. d' (Abruzzi).—**1**, Chelussi, I., 3 ; Crema, C., 5.
Octahedrite.—**1**, Boeris, G.
Octocoralla.—**0**, Nielsen, K. B.
Odenwald (Germany).—**0**, Klemm, G., 1, 2, 5, 10, 13 ; Sandkuehler, B.
Oder R. (Krakow-Silesia).—**0**, Gœtzinger, G., 2.
Oder R. area (Germany).—**0**, Wunderlich, E.
Oder valley (Silesia).—**1**, Tietze, O., 4.
Odessa (Tex.).—**2**, Merrill, G. P., 7.
Odinite, Germany.—**0**, Sandkuehler, B. ; **1**, Beger, P. J.
Odontoceras.—**2**, Steuer, A.
Odontoceti.—**2**, Dal Piaz, G., 1, 2.
Odsal (Yorks.).—**2**, Butterfield, J. A.
Œgelsee (Brandenburg).—**1**, Reck, H.
Œlsnitz (Saxony).—**2**, Krug, H.
Œsel I. (Esthonia).—**0**, O'Connell, M.; **2**, Linstow, O. v.
Œsterbotten (Finland).—**0**, Mækinen, E.
Œstergötland (Sweden).—**0**, Sundelin, A. ; **1**, Asklund, B. ; Halden, B. E. ; **2**, Asklund, B., 1, 2.
Œtztal (Tyrol).—**0**, Hess, H., 1, 3, 4 ; Klebelsberg, R. v., 2, 8, 9.
Œtztaler Alps (Trentino-Tyrol).—**0**, Hammer, W., 7 ; Meusburger, K., 1–3.
Œynhausen. *See* Bad Œynhausen.
Offenburg (Baden).—**2**, Ziervogel, H.
Ohio (U.S.A.).—**0**, Baker, F. C. ; Grover, N. C., 3, 4 ; **1**, Bucher, W. H., 3 ; Fenneman, N. M. ; Grover, N. C., 2 ; Stout, W., 1, 2 ; **2**, Conrey, G. W. ; Hyde, J. E.
—— (——), mineral resources.—**0**, Panyity, L. S. ; Rogers, G. S. ; **1**, Bownocker, J. A. ; Stout, W., 3 ; **2**, Bownocker, J. A.

Ohio (U.S.A.), Palæozoic.—**0**, Hills, T. M. ; **1**, Stauffer, C. R., 2 ; **2**, Morningstar, H.

Ohio R. basin (U.S.A.).—**0**, Grover, N. C., 3, 4 ; **1**, Grover, N. C., 2.

Ohio valley (U.S.A.).—**2**, Miller, A. M.

Ohura (N.Z.).—**2**, Grange, L. I., 2.

Oil-fields.—**1**, Arnold, R. ; McCoy, A. W. ; Mills, R. V. A., 1, 2.

—— - ——, Mid-Continent area.—**0**, Bosworth, T. O. ; **2**, Monnett, V. E.

—— - ——, water.—**1**, Brown, T. C. ; Rogers, G. S. ; **2**, Washburne, C. W.

—— - ——. *See also* Petroleum.

—— -sands, Kentucky-Ohio.—**0**, Jillson, W. R., 6 ; Panyity, L. S. ; **1**, Jillson, W. R., 14.

—— - ——, water &.—**2**, Johnson, R. H.

—— -shales.—**0**, Winchester, D. E., 2 ; **1**, Donath, E. ; Mennell, F. P., 4 ; Thiessen, R., 2.

—— - ——, Brazil.—**2**, Williams, H. E.

—— - ——, England.—**0**, Strahan, A., 4.

—— - ——, New South Wales.—**2**, Morrison, M., 10.

—— - ——, New Zealand.—**0**, Donovan, W. ; Morgan, P. G., 2 ; **2**, Ferrar, H. T.

—— - ——, Norfolk.—**0**, Bromehead, C. E. N., 2.

—— - ——, Queensland.—**0**, Reid, J. H., 1, 3.

—— - ——, Scotland.—**0**, Cadell, H. M., 2 ; Lee, G. W., 2 ; **1**, Cadell, H. M. ; **2**, Berg, G.

—— - ——, United States.—**0**, Ashley, G. H. ; Bowen, C. F. ; Condit, D. D., 3 ; Winchester, D. E. ; **1**, Jillson, W. R., 16, 17 ; Winchester, D. E. ; **2**, Hoskin, A. J.

—— - ——, Württemberg. — **1**, Schmidt, M., 3.

—— - ——. *See also* Kerogen shales & Kuckersite.

Oisans (Isère).—**2**, Kilian, C. C. W., 2.

Oiseau R. area (Manit.).—**2**, Cooke, H. C., 2.

Ojo Alamo formation, New Mexico.—**2**, Gilmore, C. W., 3.

Okehampton (Devon).—**0**, Worth, R. H.

Oklahoma (U.S.A.).—**0**, Honess, C. W. ; Stephenson, L. W. ; **2**, Grover, N. C., 6 ; Patton, L. ; Smith, W. S. T. ; Thompson, D. G., 2.

—— (——), geology & petroleum.—**0**, Beal, C. H. ; Bosworth, T. O. ; Fath, A. E. ; Heald, K. C. ; **2**, Clapp, F. G. ; Hopkins, O. B. ; Howell, J. V. ; Monnett, V. E. ; Reeves, F. ; Robinson, H. M.

Oklahoma (U.S.A.), mineral resources. —**0**, Fuller, M. L. ; Price, W. A., 2 ; United States, 5, 6, 8 ; **1**, Wheeler, H. A. ; **2**, Hewett, D. F.

—— (——), Palæozoic.—**0**, Miser, H. D., 2 ; **1**, Honess, C. W. ; Moore, R. C. ; Powers, S. ; Weidman, S. ; **2**, Dake, C. L.

Old Red Sandstone, Aberdeen area. —**0**, Bremner, A., 5 ; **1**, Mahood, A. E. ; **2**, British Association Committee, 2, 6 ; Kidston, R., 2.

—— —— ——, Anglesey.—**0**, Greenly, E.

—— —— ——, Banffshire.—**1**, Mahood, A. E.

—— —— ——, Bristol area. — **1**, Reynolds, S. H.

—— —— ——, Cardiff area. — **0**, Cox, A. H., 1, 2.

—— —— ——, Edinburgh.—**0**, Tait, D.

—— —— ——, Gloucestershire.—**1**, Gardiner, C. I. ; **2**, Sibly, T. F.

—— —— ——, Pembrokeshire. — **1**, Dixon, E. E. L.

—— —— ——, Spitsbergen. — **0**, Holtedahl, O., 8.

—— —— ——, Worcestershire. — **1**, Anon., 3.

Oldenburg (Germany).—**0**, Gagel, C., 4 ; Weingærtner, R. M. ; **1**, Gagel, C., 9 ; **2**, Wilckens, O., 3. *See also* Bremen area.

Oldhamia radiata beds, Brabant.—**1**, Asselberghs, E., 3.

Oldhaven beds, London Basin.—**0**, Baker, H. A.

Oleggio Castello (Piedmont).—**1**, Repossi, E., 10.

Olenidæ.—**0**, Holtedahl, O., 2.

Olenus-shale, Sweden.—**2**, Westergård, A. H.

Olgiasca (Lombardy).—**1**, Repossi, E., 8.

Olha (Basses-Pyrénées).—**1**, Passemard, E.

Oligobunis.—**1**, Thorpe, M. R., 3.

Oligocene.—**0**, Dollfus, G. F., 5.

——, Adour R. basin.—**0**, Dollfus, G. F., 4, 8.

——, Africa (N.W.).—**0**, Savornin, J., 2 ; **1**, Lôme, E. D. de ; Savornin, J.

——, Albania.—**2**, Nowak, E., 6.

——, Alps.—**1**, Dollfus, G. F., 6.

——, Alsace.—**0**, Gale, H. S., 2 ; Hœhne, E. ; **1**, Gignoux, M., 2 ; Grahmann, R. ; **2**, Floquet, — ; Gignoux, M., 4.

——, Aquitaine.—**0**, Douvillé, H., 5 ; **1**, Cossmann, M. ; Repelin, J., 2.

——, Basses-Alpes.—**1**, Dollfus, G. F., 5.

——, Basses-Pyrénées.—**1**, Castex, L.

——, Bavaria.—**1**, Fischer, K. ; **2**, Schlosser, M., 5.

——, Belfort.—**0**, Meyer, L.

——, Bordelais.—**2**, Dutertre, A. P. ; Repelin, J.

Oligocene, Bouches - du - Rhône. — **1**, Dollfus, G. F., 2, 3 ; **2**, Denizot, G.
——, Brandenburg.—**0**, Hucke, K.
——, British Columbia.—**0**, Cooke, H. C. ; **1**, Mackenzie, J. D., 1, 2.
——, Cantal.—**2**, Glangeaud, P., 3.
——, Celebes.—**0**, Martin, K., 4 ; **1**, Dollfus, G. F., 8.
——, Cyrenaica.—**0**, Fabiani, R., 8 ; **1**, Stefanini, G., 2.
——, Czechoslovakia.—**2**, Rzehak, A., 3 ; Seemann, F.
——, Danzig.—**1**, Jentzsch, A., 5.
——, Denmark.—**1**, Milthers, V., 9.
——, E. Prussia.—**1**, Jentzsch, A., 5 ; Kaunhowen, F.
——, France.—**2**, Dollfus, G. F., 6.
——, —— (S.W.).—**0**, Dollfus, G. F., 11, 12 ; **1**, Blayac, J., 2 ; Dollfus, G. F.
——, Germany (N.).—**2**, Oppenheim, P., 4.
——, Gironde.—**0**, Dollfus, G. F., 10 ; **2**, Dollfus, G. F., 4.
——, Hanover .— **1**, Haack, — ; Kœrt, W. ; Stoller, J., 2.
——, Hesse-Nassau.—**1**, Beetz, W. ; Blanckenhorn, M., 2–4 ; Drevermann, F., 2 ; **2**, Wenz, W., 5.
——, Holland.—**2**, Leriche, M.
——, Ille-et-Vilaine. — **2**, Dangeaud, L., 2 ; Kerforne, F. J., 3.
——, I. of Wight.—**1**, White, H. J. O.
——, Italy.—**0**, Fabiani, R., 5 ; Sacco, F., 11 ; **1**, Lupano, G. ; Scalia, S. ; **2**, Dal Piaz, G. ; Fabiani, R., 5, 8 ; Kranz, W. ; Oppenheim, P. ; Repossi, E.
——, Lot-et-Garonne.—**0**, Déguilhem, P. ; Labrie, J.
——, Lozère. — **2**, Glangeaud, P., 3.
——, Mainz Basin.—**0**, Geib, K. ; **1**, Fischer, K., 2.
——, Massif Central.—**0**, Glangeaud, P.
——, North Sea area.—**1**, Gripp, K.
——, Paris Basin.—**0**, Dollfus, G. F., 7 ; **1**, Dollot, A., 2, 3.
——, Poland.—**1**, Jentzsch, A., 5.
——, Porto Rico.—**0**, Maury, C. J. ; **2**, Mitchell, G. J.
——, Rheinland.—**1**, Zimmermann, E., II.
——, Rhine Valley.—**1**, Landgræber, W.
——, Romania.—**2**, Grozescu, H., 5 ; Preda, D. M., 5 ; Protescu, O., 6.
——, Saxony.—**1**, Linstow, O. v., 6 ; Scupin, H., 1, 2.
——, Silesia.—**1**, Assmann, P., 2.
——, Spain.—**1**, Born, A. ; Depéret, C. ; Gavala, J.
——, Swabia.—**2**, Dietrich, W. O.
——, Switzerland.—**1**, Baumberger, E. ; **2**, Baumberger, E. ; Keller, W. T. ; Stehlin, H. G.
——, United States.—**2**, Cooke, C. W., 2 ; O'Harra, C. C. ; Sinclair, W. J., 2, 6 ; Wanless, H. R.
Oligocene, Vaucluse. — **1**, Dollfus, G. F., 4.
——, Yonne.—**1**, Hure, A., 2.
——. *See also* Headon beds, Rupelian, *&c.*
Oligochæta.—**2**, Benham, W. B.
Oligoclase.—**2**, Zenzén, N., 3.
Oligokyphus.—**2**, Hennig, E., 5.
Olivine.—**2**, Macgregor, A. G. *See also* Titanolivine.
—— -monchiquite. *See* Monchiquite.
Olonets (Russia).—**1**, Homén, T.
Olsberg (Westphalia).—**1**, Græfenkæmper, W.
Olten (Solothurn).—**0**, Muehlberg, F.
Oltenia (Romania). — **2**, Ionescu-Argetoaia, I., 1–4, 6–9 ; Macovei, G. ; Murgoci, G., 9 ; Rotman, D., 3, 4.
Oltu valley (Wallachia).—**2**, Popescu-Voiteşti, I., 7.
Omachi (Japan).—**2**, Omori, F., 4.
Ombret conglomerate.—**2**, Anten, J., 3 ; Anthoine, R., 3.
Omphalocyclus.—**2**, Douvillé, H., 5, 6.
Omphalophloios.—**1**, Hœrich, O., 2.
Onerahi (N.Z.).—**2**, Bartrum, J. A., 2.
Ontario.—**1**, Cooke, H. C. ; Hobbs, W. H., 2 ; Kindle, E. M., 3 ; Williams, M. Y., 3 ; **2**, Coleman, A. P., 3 ; Ellsworth, H. V. ; Keele, J. ; Tanton, T. L., 1–3 ; Whitman, A. R. ; Wilson, M. E., 2.
——, fluorspar.—**0**, Mond, R. L. ; **1**, Greenland, C. W. ; **2**, Anon., 33 ; Wilson, M. E., 3.
——, gold.—**0**, Bell, J. M., 2 ; Cooke, H. C., 2 ; **1**, Burrows, A. G., 1, 2 ; **2**, Burrows, A. G., 2 ; Hopkins, P. E. ; Thomson, E.
——, mineral resources.—**0**, Cole, L. H., 2 ; Fréchette, H. ; Keele, J. ; Kule [Keele], J. ; Walker, T. L. ; **1**, Keele, J., 2, 4 ; Spence, H. S., 2 ; Williams, M. Y., 1, 2 ; Wilson, M. E. ; **2**, Brunton, S., 3 ; Keele, J., 2 ; Spence, H. S., 3 ; Williams, M. Y., 2.
——, mineral veins.—**0**, Coleman, A. P., 3 ; Tyrrell, J. B. ; Whitehead, W. L. ; Whitman, A. R.
——, ore-deposits.—**0**, Bell, J. M. ; Gwillim, J. C., 5 ; Hanson, G. ; Lindgren, W., 4 ; Robinson, A. H. A. ; **1**, Robinson, A. H. A. ; Tanton, T. L. ; **2**, Wright, J. F.
——, Palæozoic.—**0**, Hume, G. S. ; Williams, M. Y., 1, 2 ; **1**, Spencer, J. W. ; **2**, Williams, M. Y. ; Wilson, A. E.
——, peat-bogs.—**1**, Anrep, A. ; **2**, Anrep, A., 1, 2.
——, Pre-Cambrian.—**0**, Cooke, H. C., 3 ; Rothpletz, A. ; **1**, Wilson, M. E., 2 ; **2**, Bruce, E. L. ; Burwash, E. M. ; Collins, W. H. ; Cooke, H. C. ; Quirke, T. T., 1, 2.

Ontario, silver.—**2**, Bastin, E. S., 3 ; Bell, J. M. ; Burrows, A. G. ; Whitman, A. R., 2.
Ontario, L.—**0**, Spencer, J. W., 2 ; **1**, Kindle, E. M., 2.
Onyx marble. *See* Marble.
Ooids. *See* Oolite.
Oolite.—**0**, Sommermeier, L. ; **1**, Elsden, J. V. ; Gagel, C., 8 ; **2**, Rothpletz, A.
——, Orne.—**1**, Antoine, —.
——, Württemberg.—**1**, Musper, F.
——, ferruginous.—**0**, Cayeux, L.; **1**, Grossouvre, A. de, 3 ; Lamplugh, G. W., 5.
——. *See also* Inferior Oolite *&* Millepore Oolite.
Oolitic iron. *See* Iron.
—— limestones. *See* Limestones.
Oosterella.—**0**, Kilian, W., 3.
Opal.—**2**, Rinne, F., 2.
——, New South Wales.—**0**, Morrison, M., 6 ; Skeats, E. W., 2 ; **2**, Chapman, F., 5.
——, Queensland.—**2**, Anon., 27 ; Saint-Smith, E. C.
——. *See also* Semiopal.
Opdalite, Norway.—**2**, Goldschmidt, V. M., 6.
Operculina.—**1**, Cushman, J. A.
Ophicalcite.—**1**, Linck, G., 3.
Ophiolitic molasse, Apennines (N.).—**1**, Pantanelli, D.
Ophir (Utah).—**1**, Olmstead, S. G.
Opiliones.—**2**, Petrunkevitch, A.
Oppelinæ.—**0**, Douvillé, R.
Oppeln (Silesia).—**1**, Michael, R., 2.
Optic axes, crystals.—**1**, Hilton, H. ; Rubens, H.
—— axial angles.—**1**, Berek, M., 2 ; **2**, Schwietring, F.
Oran (Algeria).—**1**, Arambourg, C. ; **2**, Dalloni, M., 1, 4 ; Lugeon, M.
Orange Free State.—**0**, Kunz, G. F. ; **1**, Wybergh, W. ; **2**, Hall, A. L., 2 ; Wybergh, W. J.
Oranienburg (Brandenburg).—**0**, Keilhack, K., 5.
Orari R. (N.Z.).—**2**, New Zealand, 19.
Orbitella.—**2**, Douvillé, H., 6.
Orbitoidea.—**0**, Douvillé, H., 9 ; **1**, Douvillé, H., 1, 2, 18.
——, Cretaceous.—**2**, Douvillé, H., 5, 6.
——, Eocene.—**1**, Regè, R.
——, Tertiary.—**1**, Douvillé, H., 4, 6.
Orbitolina.—**2**, Gignoux, M., 5.
Orbitolites.—**1**, Sollas, W. J.
Orbitopsella.—**2**, Gignoux, M., 5.
Ordovician, Anglesey. — **0**, Greenly, E.
——, Bear I.—**2**, Holtedahl, O., 3.
——, Bohemia.—**2**, Kettner, R., 5 ; Kodym, O.
——, Breconshire.—**1**, Stamp, L. D., 7.
——, Canada (W.).—**2**, Burling, L. D., 2, 3.
Ordovician, Carnarvonshire. — **2**, Williams, H.
——, China (N.).—**2**, Grabau, A. W., 2.
——, Denbighshire.—**0**, Wills, L. J., 1, 2 ; **1**, Wills, L. J., 2 ; **2**, Wills, L. J.
——, Esthonia.—**1**, Bekker, H. ; **2**, Beyschlag, F., 11.
——, Europe.—**0**, Born, A.
——, France.—**0**, Fraipont, C., 2 ; Stouvenot, A. ; **1**, Kerforne, F., 5, 7 ; Milon, Y. ; **2**, Kerforne, F. J., 3, 8.
——, French Indo-China.—**2**, Mansuy, H., 3, 8.
——, Illinois.—**0**, Cady, G. H. ; **2**, Savage, T. E., 1, 2.
——, Indiana.—**0**, McEwan, E. D.
——, Kentucky. — **0**, Butts, C. ; Fœrste, A. F., 3, 4 ; Miller, A. M. ; Phalen, W. C. ; **1**, Fenneman, N. M. ; **2**, Jillson, W. R., 6, 7.
——, Lake District.—**0**, Bain, A. D. N. ; **1**, Green, J. F. N.
——, Manitoba.—**0**, Bruce, E. L.
——, Maryland.—**0**, Bassler, R. S.
——, Massachusetts.—**0**, Dale, T. N.
——, Merioneth.—**0**, Cox, A. H., 4 ; **1**, Cox, A. H. ; Elles, G. L. ; **2**, Elles, G. L., 5 ; Wills, L. J.
——, Mississippi R. area.—**2**, Dake, C. L.
——, New York.—**0**, Chadwick, G. H., 6 ; **2**, Ruedemann, R., 2.
——, N. America (W.).—**2**, Raymond, P. E., 3.
——, Norway.—**0**, Holtedahl, O. ; **1**, Kiær, J. ; **2**, Kiær, J., 1, 6.
——, Ohio.—**0**, Hills, T. M. ; **1**, Fenneman, N. M.
——, Ontario.—**2**, Keele, J., 2 ; Wilson, A. E.
——, Pembrokeshire.—**1**, Dixon, E. E. L. ; **2**, Part, G. M.
——, Pennsylvania.—**1**, Gordon, S. G., 3.
——, Poland.—**1**, Samsonowicz, J.
——, Quebec.—**0**, Twenhofel, W. H., 2 ; **2**, Keele, J., 2 ; Mackay, B. R. ; Twenhofel, W. H.
——, Saskatchewan.—**0**, Bruce, E. L.
——, Shropshire.—**2**, Hall, T. C. F. ; Smith, B., 2.
——, Spain.—**0**, Born, A. ; **2**, Sampelayo, P. H.
——, Sweden.—**0**, Troedsson, G. ; **1**, Hœgbom, A. G.
——, Tennessee.—**0**, Raymond, P. E. ; **2**, Bassler, R. S., 2.
——, United States.—**0**, Purdue, A. H. ; Shaw, E. W., 5.
——, Vermont.—**2**, Ruedemann, R., 7.
——, Victoria.—**1**, Harris, W. J. ; **2**, Dunn, J. A., 1, 2 ; Ferguson, W. H., 2.
——, Virginia.—**0**, Raymond, P. E.
——, Wales (N.).—**0**, Strahan, A., 3.

Ordovician, W. Australia.—**1**, Talbot, H. W. B.

——. *See also* Cambro-Ordovician.

Ore-bodies.—**2**, Williams, L. B.

—— -breccia, Sweden.—**2**, Geijer, P., 2.

—— -deposition, Bolivia.—**0**, Davy, W. M. ; **1**, Singewald, J. T., *fil.*

—— - ——, Saxony.—**1**, Beyschlag, F., 4.

—— - ——, Victoria.—**0**, Stilwell, F. L.

Ore-deposits.—**0**, Roux-Brahic, J. ; Vogt, J. H. L., 2 ; **1**, Kendall, J. D.; **2**, Berg, G., 5, 6, 8 ; Beyschlag, F., 2, 6 ; Goudkoff, P. P., 2 ; Stahl, A., 2.

—— - ——, chemistry.—**0**, Clarke, F. W. ; Eichleiter, C. F., 1, 4.

—— - ——, classification.—**2**, Beck, R. ; Sachs, A., 2.

—— - ——, contact. — **2**, Goldschmidt, V. M.

—— - ——, differentiation &.—**0**, Rastall, R. H.

—— - ——, distribution.—**0**, Kendall, J. D., 1, 3, 4 ; **1**, Kemp, J. F., 3 ; **2**, Kemp, J. F., 6.

—— - ——, enrichment.—**0**, Emmons, W. H.

—— - ——, epigenetic.—**0**, Meunier, S., 2.

—— - ——, formation.—**1**, Wheeler, H. A. ; **2**, Jones, W. R.

—— - ——, igneous.—**1**, Goodchild, W. H. ; Rastall, R. H., 2.

—— - ——, iron. — **1**, Atkinson, J. B. ; Goodchild, J. H. ; Jones, A. A. ; Kendall, J. D., 2.

—— - ——, origin.—**0**, Bastin, E. S., 2 ; Fermor, L. L. ; Katô, T. ; Taber, S., 3 ; **1**, Harrassowitz, H. L. F., 2 ; Rastall, R. H. ; **2**, Berg, G., 2 ; Campbell, J. M. ; Gregory, J. W., 4 ; Lang, R., 6 ; Sachs, A. ; Whitman, A. R., 2.

—— - ——, pneumatogenic. — **2**, Sachs, A., 3.

—— ——, pneumatolytic. — **0**, Dœrpinghaus, W. T.

—— - ——, primary.—**1**, Campbell, J. M., 1, 2 ; Kendall, J. D., 4 ; **2**, MacLachlin, D. K. F. ; Whitehead, P. W.

—— - ——, prospecting.—**0**, McLeod, A. ; **1**, Locke, A. ; **2**, Schlumberger, C.

—— - ——, in stratified rocks.—**1**, Greenwood, H. W.

—— - ——, text-book.—**2**, Beyschlag, F., 12 ; Krusch, P.

—— - ——, United States National Museum.—**0**, Shannon, E. V., 10.

—— - ——, world's production & resources.—**0**, United States, 4–6, 8, 9 ; **1**, Imperial Mineral Resources Bureau, 22.

—— - ——. *See also* Alaska, Placers *&c.*

Ore-minerals.—**0**, Emmons, W. H. ; McLeod, A. ; **1**, Crook, T. ; Holmquist, P. J., 3.

—— - ——, Ontario.—**2**, Burrows, A. G., 2.

—— - ——, Transvaal.—**1**, Wagner, P. A., 5.

—— - ——, United States.—**0**, Butler, B. S. ; Lindgren, W., 5 ; Rogers, A. F., 2 ; **2**, Bastin, E. S., 2 ; Ries, H.

—— - ——, microscopy.—**1**, Schlossmacher, K., 2 ; **2**, Bastin, E. S.

—— - ——, United States National Museum.—**2**, Shannon, E. V., 3.

—— -veins. *See* Veins.

Oregon (U.S.A.).—**1**, Packard, E. L., 3 ; Smith, W. D.

—— (——), Neogene.—**1**, Howe, H. V. ; Thorpe, M. R. ; **2**, Chaney, R. W. ; Howe, H. V.

—— (——), ore-deposits.—**0**, United States, 4–6, 8 ; **1**, United States, 8 ; **2**, Diller, J. S., 2 ; Hess, F. L. ; Pardee, J. T. ; United States, 10.

—— (——), water.—**0**, Grover, N. C., 1–4 ; **1**, Grover, N. C., 4, 6, 8 ; **2**, Baldwin, G. C. ; Grover, N. C., 2.

—— (——). *See also* Columbia valley.

Oreodon-beds, S. Dakota.—**2**, Sinclair, W. J., 6.

Oreodontidæ.—**0**, Loomis, F. B. ; **1**, Thorpe, M. R., 2, 4–7.

Ores.—**1**, Galippe, V. ; Wright, F. E., 2 ; **2**, Berg, G., 7 ; Braly, A. ; Duparc, L., 2.

——, bacteria &.—**1**, Anon., 8 ; **2**, Helbronner, A.

——, microscopy.—**1**, Bányai, J., 3 ; Schneiderhœhn, H., 2.

——, sulphide.—**1**, Krusch, P., 2 ; **2**, Beutell, A., 4.

Organic matter, in water.—**0**, Andrimont, R. d'.

Organisms.—**0**, Yermoloff, N. ; **1**, Gignoux, M.

——, in flint.—**1**, Carus-Wilson, C. ; Cole, G. A. J., 6 ; **2**, Wetzel, W., 4.

——. *See also* Bacteria, Life, *&c.*

Orhomalus.—**2**, Van Straelen, V., 4.

Oribates.—**1**, Sellnick, M.

Orientite.—**1**, Foshag, W. F., 2 ; Hewett, D. F.

Orijärvi (Finland).—**1**, Eskola, P.

Oriskany formation, United States (E.).—**0**, Holden, R. J. ; **1**, Eaton, H. N.

Orissa. *See* Bihar & Orissa.

Orkney Is.—**0**, Flett, J. S.

Orleans (Loiret).—**0**, Denizot, G., 4.

Ornamental stones, Minnesota.—**0**, Bowles, O.

—— ——, Spain.—**1**, Rubio, E.

Orne (France).—**0**, Loisel, P. ; **1**, Antoine, — ; Censier, E. ; Loisel, P. ; **2**, Loisel, P.

Ornithopsis.—**2**, Huene, F. v., 13.

Orobica Mts. (Lombardy).—**1**, Staub, R., 3.
Orogeny. *See* Mountain-building.
Oronsay I. (Hebrides).—**0**, Bishop, A. H.
Orophocrinus.—**2**, Bather, F. A., 3.
Orpiment.—**1**, Cesàro, G.; **2**, Wallerius, I. D.; Zenzén, N., 1, 2.
Orroli (Sardinia).—**0**, Comucci, P., 2.
Orsay (Seine-et-Oise).—**0**, Fritel, P. H., 3.
Orthaulax.—**0** & **2**, Cooke, C. W.
Orthite.—**1**, Eitel, W.; **2**, Chirvinski, P., 2. *See also* Epidote-orthite.
Orthoceras.—**1**, Buelow-Trummer, E. v.; **2**, Ruedemann, R., 2.
Orthochoanites.—**0**, Grabau, A. W., 6.
Orthoclase.—**1**, Johnsen, A.; **2**, Campbell, J. M., 4; Hezner, L.; Hughes, K. M.; Morey, G. W.; Muegge, O., 8. *See also* Pseudo-orthoclase, & Tridymite-orthoclase-rock.
Orthogenesis, the term.—**0**, O'Connell, M., 2.
Orthogneiss, Styria.—**1**, Kittl, E.
Orthophragmina.—**0**, Cushman, J. A., 2; **1**, Cooke, C. W.; Cushman, J. A., 2; Douvillé, H., 2.
Orthophyre, Savoie.—**1**, Termier, P., 6.
Orthopoda.—**0** & **2**, Nopcsa, F., 6.
Orthosilicates.—**1**, Larsen, E. S.
Ortler Mts. (Trentino).—**0**, Dœhler, K.
Orvillite.—**0**, Gaubert, P.
Ôshima volc. (Japan).—**0**, Tsuboi, S.
Oslo area (Norway).—**0**, Holtedahl, O., 9; **2**, Goldschmidt, V. M., 1, 5; Kiær, J., 3.
Osmiridium.—**1**, Reid, A. M.
——, Papua.—**1**, Australia.
Osmium.—**0**, Howe, J. L.; **2**, Great Britain, 13.
Osning (Westphalia).—**0**, Kuhlmann, L.; **1**, Haack, W., 3; Meyer, E., 3.
Osorno volc. (Chile).—**0**, Bruhns, W.
Ospwagan L. area (Manit.).—**1**, Alcock, F. J., 2.
Ossola, Valle d' (Piedmont).—**1**, Bianchi, A., 1–4.
Osterfeld (Westphalia).—**1**, Bœhm, J., 3.
Ostracod-beds, Hainault.—**0**, Dubois, J.
Ostracoda, Cambrian.—**1**, Cobbold, E. S.
——, Cretaceous.—**0**, Franke, A.; Hucke, K.
——, Devonian.—**1**, Fuchs, A., 4; **2**, Chapman, F.; Leidhold, C., 2.
——, Eocene.—**1**, Méhes, J.
——, Lias.—**1**, Méhes, J.
——, Miocene.—**0**, Toula, F.; **1**, Zalányi, B.; **2**, Chapman, F., 2.
——, Ordovician.—**0**, Bassler, R. S.; Miller, A. M.; Reed, F. R. C.; **2**, Wilson, A. E.
——, Palæozoic.—**0**, Holtedahl, O., 6.
Ostracoda, Permian.—**1**, Stauffer, C. R., 2.
——, Permo-Carboniferous.—**1**, Chapman, F.
——, Pleistocene.—**0**, Chapman, F., 3.
——, Silurian.—**0**, Chapman, F., 6; Reed, F. R. C.; **1**, Chapman, F.
——, Tertiary.—**1**, Bézier, T.
——, Trias.—**0**, Trauth, F.
Ostracodermi.—**1**, Pruvost, P., 5; Woodward, A. S.
Ostrau (Czechoslov. Silesia).—**2**, Hœfer, H.; Petrascheck, W.
Ostreidæ.—**0**, Bell, Alfred; **1**, Bell, Alfred, 2.
Oswestry (Salop).—**1**, Nicholson, E. D.
Ôszombat (Slovakia).—**1**, Lóczy, L. v., *fil*, 2.
Otago (N.Z.).—**0**, Cotton, C. A.; New Zealand, 4, 5; Park, J., 1, 2; **2**, Grange, L. I.; Marwick, J.; Rogers, L.
—— (——), sarsen-stones.—**1**, Howchin, W., 8; Speight, R.
—— (——), Tertiary.—**0**, Morgan, P. G., 7; Uttley, G. H., 1–3.
Otavi (S.-W. Afr.).—**2**, Schneiderhœhn, H.
Otavi formation, S.-W. Africa.—**2**, Schneiderhœhn, H.
Otiake R. area (N.Z.).—**0**, Uttley, G. H., 1, 2.
Otjozonjati (S.-W. Afr.).—**2**, Hueser, —; Westphal, H.
Otocyon.—**2**, Reck, H., 7.
Otoliths.—**0**, Schubert, R. J., 2; Shepherd, C. E.; **1**, Pellegrin, J.
Otozamites.—**1**, Walkom, A. B., 2.
Ottawa valley.—**1**, Wilson, M. E.
Ottenstein (Brunswick).—**1**, Grupe, O.
Ottignies (Brabant).—**2**, Leriche, M., 9.
Ottokaria.—**1**, Thomas, H. Hamshaw.
Ottrelite-schists. *See* Schists.
Ouachita Mts. (Ark.-Okla.).—**0**, Honess, C. W.; Miser, H. D., 2.
Oudjda (Morocco).—**1**, Russo, P.
Oulankajoki R. area (Finland).—**0**, Hænninen, K.
Outlier, Devonian, Missouri.—**2**, Bridge, J.
Ovamboland (S.-W. Afr.).—**0**, Schwarz, E. H. L.
Overath (Rheinland).—**1**, Fliegel, G., 2.
Overlap. *See* Transgressions.
Overthrust-masses. *See* Nappes.
Overthrusts.—**0**, Vredenburg, E. W., 3; **2**, Rimbach, C.
——, Austria.—**0**, Cornelius, H. P., 2; Kerner, F. v., 17; **1**, Crammer, H.
——, Dobrogea.—**2**, Macovei, G., 7.
——, Germany.—**0**, Cornelius, H. P., 2; Gagel, C., 3; **1**, Naumann, E., 7; **2**, Breddin, H.

Overthrusts, Graubünden.—**0**, Wilckens, O., 4.
——, Teruel.—**2**, Joly, H.
——, United States (W.).—**0**, Hewett, D. F., 2 ; **2**, Longwell, C. R.
——, Yugoslavia.—**0**, Kerner, F. v., 2 ; **2**, Katzer, F., 3.
Overyssel (Holland).—**2**, Bœhm, J.
Ovibos.—**0**, Wanderer, K. ; **2**, Hescheler, K. ; Hilzheimer, M., 3.
Owen Stanley Range (Papua).—**0**, Stanley, E. R.
Owyheeite.—**1**, Shannon, E. V., 2.
Oxfordian, Cuba.—**0**, Brown, B.
——, boulders, Pomerania.—**1**, Kegel, W.
Oxfordshire.—**1**, Richardson, L., 1, 3.
Oxidation, coal.—**2**, Durnerin, M.
——, glauconitic sands.—**1**, Charpiat, R., 2.
Oxide minerals.—**1**, Buttgenbach, H.
Oxides, in igneous rocks.—**2**, Richardson, W. A., 2.
——, refractory.—**2**, Andersen, O.
Oxynoticeras.—**0**, Pia, J. v.
Oxytropidoceras.—**2**, Stieler, C.

P

Pabay I. (Hebrides).—**2**, Spath, L. F., 4.
Pachydiscus.—**1**, Yabe, H., 2.
Pachyodonta.—**0**, Hennig, E., 2.
Pacific area, coral-islands & -reefs.—**0**, Davis, W. M., 1, 3, 7 ; Vaughan, T. W., 5 ; **1**, Vaughan, T. W.
—— ——, correlation.—**2**, Smith, W. D., 2 ; Vaughan, T. W., 4, 6.
—— ——, crustal deformation.—**1**, Hobbs, W. H., 5.
—— ——, lavas.—**2**, Washington, H. S., 4.
—— ——, petroleum.—**2**, White, D., 3.
—— ——. *See also* Marshall Is., Oceania, *&c.*
Padaukbin (Burma).—**2**, Cotter, G. de P.
'Paganella-lines,' tectonics. — **0**, Vacek, M.
Paisley (Renfrewsh.).—**0**, Hinxman, L. W.
Palæoammonoidea.—**0**, Wedekind, R.
Palæobotany.—**1**, Berry, E. W.
——, earth's history &.—**1**, Coleman, A. P., 2.
——, in Great Britain.—**0**, Seward, A. C.
——, teaching of.—**1**, Berry, E. W., 2.
——, text-book.—**1**, Scott, D. H.
Palæoclimates. *See* Climates.
Palæodictyon.—**0**, Kindelan, V.
Palæogene, Pomerania.—**1**, Klautzsch, A., 4.
Palæogeography.—**0**, Dacqué, E. ; Wenz, W., 3 ; **1**, Goodchild, J. H., 2 ; Meyer, H. L. F.
Palæogeography, Atlantis &. — **0**, Matthew, W. D., 4.
——, Cretaceous.—**2**, Gregory, J. W., 2.
——, European Devonian. — **2**, Schindewolf, O. H.
——, fossils &.—**2**, Walther, J.
——, man &.—**1**, Childe, A.
——, oceans &.—**0**, Gorceix, C., 2 ; Termier, P., 4.
——, Palæozoic.—**0**, Holtedahl, O., 15.
——, Post-Cretaceous.—**2**, Vaughan, T. W., 4, 6.
——, Pre-Cambrian.—**2**, Ruedemann, R., 3.
——, S. hemisphere. — **1**, Windhausen, A. ; **2**, Keidel, J.
——, Trias.—**0**, Diener, C., 3.
——. *See also* Land-bridges, Llanoria, *&c.*
Palæolagus.—**1**, Troxell, E. L., 2.
Palæolithic.—**0**, Dawkins, W. B. ; Moir, J. R., 4.
——, Egypt.—**1**, Seligman, C. G.
——, Europe.—**2**, Macalister, R. A. S.
——, Germany.—**0**, Werth, E. ; **1**, Zimmermann, E., II, 9.
——, Italy.—**0**, Battaglia, R. ; **1**, Bellini, R., 2.
——, Jersey.—**2**, British Association Committee, 7.
——, Styria.—**2**, Kyrle, G.
——, Tanganyika.—**0**, Werth, E., 2.
——. *See also* Mousterian & Solutrean.
Palæoliths. *See* Implements.
Palæomastodon.—**0**, Osborn, H. F., 7.
Palæomyces.—**2**, Kidston, R., 2.
Palæontinidæ.—**1**, Tillyard, R. J.
Palæontology.—**2**, Branca, W., 3 ; Jækel, O.
——, in Asia (S.E.).—**0**, Mansuy, H., 8.
——, Australian survey &.—**2**, Dunstan, B.
——, classification in.—**1**, Troxell, E. L., 7.
——, evolution &.—**1**, Petronievics, B. ; Philippi, E.
——, fossil collections.—**0**, Raymond, P. E., 2.
——, future of.—**0**, Schuchert, C., 2.
——, geology &.—**0**, Jækel, O. ; **2**, Branca, W. ; Pompeckj, J. F.
——, graphs in.—**1**, Swinnerton, H. H.
——, history &.—**0**, Merriam, J. C.
——, invertebrate.—**0**, Hawkins, H. L.
——, life &.—**0**, Bather, F. A., 3 ; **2**, Bather, F. A. ; Drevermann, F., 4 ; Wepfer, E., 3.
——, Mendelism &.—**2**, Bather, F. A., 2 ; Duerden, J. E. ; Gates, R. R.
——, nomenclature.—**1**, Bather, F. A. ; **2**, Hilber, V.

Palæontology, in N. America.—**1**, Schuchert, C.
——, orthogenesis &.—**0**, O'Connell, M., 2.
——, scientific status of.—**1**, Clarke, J. M., 2.
——, stratigraphy &.—**1**, Weller, S.
——, teaching of.—**1**, Jackson, R. T.
——, text-books.—**0**, Davies, A. M.; Walther, J., 5; **2**, Walther, J.
——, Trias.—**0**, Diener, C., 3.
——, United States (W.).—**1**, Merriam, J. C., 3.
——, variation statistics in. — **0**, Klæhn, H., 2.
——, zoology &.—**1**, Osborn, H. F.
——. *See also* Fossils, Micropalæontology, *&c.*
Palæopathology. *See* Fossils, diseases in.
Palæospondylus.—**2**, Deriuguin, C.
Palæosycorax.—**1**, Edwards, F. W., 2.
Palæotanypeza.—**2**, Meunier, F.
Palæozoic, Alabama.—**1**, Semmes, D. R.
——, Alaska.—**0**, Capps, S. R., 4; Mertie, J. B., *fil*; **1**, Eakin, H. M.
——, Arabia.—**2**, Dienemann, W.
——, Arctica.—**0**, Holtedahl, O., 10, 15.
——, Asia Minor.—**0**, Frech, F., 2.
——, Atlantic area.—**0**, Holtedahl, O., 15.
——, Austria.—**0**, Heritsch, F., 2; **2**, Bock, H.; Hilber, V., 2; Penecke, K. A.
——, Bear I.—**0**, Holtedahl, O., 13.
——, Belgium.—**0**, Fourmarier, P., 1, 11, 13; **1**, Fourmarier, P., 4.
——, Bohemia.—**0**, Kettner, R., 4; **2**, Katzer, F.; Moscheles, J., 2; Nowak, E., 1, 2.
——, British Columbia.—**1**, Schofield, S. J.; **2**, Shepard, F. P., 3.
——, California.—**0**, Knopf, A., 4.
——, Canada (E.).—**0**, Bailey, L. W.; Matthew, G. F.; Savage, T. E., 2; **1**, Tilmann, N.
——, China.—**0**, Brown, J. C., 2; **1**, Lee, J. S.
——, Córdoba.—**1**, Joly, H.
——, Ellesmere Land.—**0**, Holtedahl, O., 6.
——, England (N.).—**1**, Marr, J. E.
—— rocks, dredged from English Channel.—**2**, Kerforne, F. J., 10.
——, France.—**0**, Kerforne, F., 4, 5, 7, 8; **1**, Bertrand, L., 2; Pruvost, P., 2.
——, French Indo-China.—**0**, Mansuy, H., 3.
——, Germany.—**0**, Pietzsch, K., 2; Schottler, W., 6; **1**, Beetz, W.; Muegge, O.; Quaas, A., 2; Zimmermann, E., I, 4, 6.
——, Greenland.—**2**, Koch, L., 2.
——, Hungary.—**1**, Schréter, Z., 3, 4.
Palæozoic, Idaho.—**1**, Mansfield, G. R.
——, Ireland.—**0**, Wright, W. B.; **1**, Cole, G. A. J., 2.
——, Kentucky.—**0**, Butts, C., 4; Jillson, W. R., 1, 2, 6; Miller, A. M., 2, 3; Nettelroth, H.; Shaw, E. W.; **1**, Jillson, W. R., 2, 14, 21, 23, 25.
——, Lake District.—**0**, Green, J. F. N.
——, Michigan.—**0**, Sherzer, W. H.
——, Missouri.—**0**, Branson, E. B.
——, Montana.—**0**, Condit, D. D., 2.
——, Morocco.—**1**, Lôme, E. D. de; Savornin, J., 3; **2**, Lecointre, G., 2.
——, New Mexico.—**0**, Darton, N. H.; Keyes, C. R., 6.
——, New Zealand.—**0**, Park, J., 2.
——, N. America (E.).—**0**, Schuchert, C.
——, Norway.—**0**, Holtedahl, O., 9, 11, 14.
——, Nova Scotia.—**1**, Faribault, E. R., 2.
——, Ohio.—**1**, Bownocker, J. A.
——, Ontario.—**0**, Hume, G. S.; Williams, M. Y., 1, 2; **1**, Wilson, M. E., 2; **2**, Williams, M. Y.
——, Peru.—**1**, Douglas, J. A.
——, Punjab.—**0**, Vredenburg, E. W., 8.
——, Quebec.—**1**, Wilson, M. E., 2.
——, Scandinavia.—**0**, Holtedahl, O., 16.
——, S. Africa.—**0**, Guerich, G., 2.
——, Staffordshire.—**1**, King, W. W., 2.
——, Sweden.—**0**, Gavelin, A., 2; Grabau, A. W.; Grœnwall, K. A., 1, 2; Munthe, H.
——, United States.—**0**, Grabau, A. W., 2.
——, Utah.—**0**, Lindgren, W., 5.
——, Victoria.—**0**, Ferguson, W. H., 2, 3 [4]; Teale, E. O.; **1**, James, A. V. G.; Teale, E. O.
——, Wisconsin.—**0**, Alden, W. C.
——, Wyoming.—**0**, Condit, D. D., 2.
——. *See also* Barrandian, Devonian, *&c.*
Palæozoogeography.—**2**, Schuchert, C.
Palæozoology.—**0**, Stromer, E., 3.
Palaiseau (Seine-et-Oise).—**0**, Fritel, P. H., 3.
Palapye (Bechuanaland).—**2**, Maufe, H. B., 2.
Palembang (Sumatra). — **0**, Dieckmann, W.
Paleocene.—**0**, Matthew, W. D., 2.
——, Denmark.—**1**, Bœggild, O. B.; Milthers, V., 7; Rosenkrantz, A.
——, Patagonia.—**2**, Wilckens, O., 2.
——, Pomerania.—**0**, Gagel, C., 2.
Palestine.—**0**, Blanckenhorn, M.; Brock, R. W.; Thomas, H. Hamshaw, 1, 2; **1**, Artini, E., 4; Brock, R. W.; Fuchs, E.; Range, P.; **2**, Range, P., 2.

Palingenesis.—**0**, Holmquist, P. J.
Palladium.—**0**, Howe, J. L.; **2**, Great Britain, 13.
——, Alaska.—**2**, Mertie, J. B., *fil.*
Pallasites, Alaska.—**2**, Merrill, G. P., 6.
——, Don R. area.—**2**, Chirvinski, P.
——, New South Wales.—**1**, Tchirvinsky, P.
Palliser Bay (N.Z.).—**0**, Thomson, J. A., 2.
Palmer Archipelago (Subantarctica).—**2**, Ferguson, D.; Tyrrell, G. W.
Palmierite.—**1**, Zambonini, F., 3.
Palmoxylon.—**1**, Stevens, N. E.
Paludinidæ.—**0**, Mansuy, H., 7.
Pamir (Central Asia).—**2**, Oldham, R. D., 4; Reed, F. R. C., 2; Sckpilko, —.
Pampas, Argentina.—**0**, Rovereto, G.
Pampean formation, Argentina.—**1**, Ameghino, F., 4, 8, 10, 11, 14; Bodenbender, G.; Frenguelli, J., 2; **2**, Ameghino, F.; Castellanos, A.; Frenguelli, G., 4.
—— ——, Uruguay.—**2**, Walther, K.
'Pan,' Transvaal.—**1**, Du Toit, A. L., 4; Wagner, P. A., 3.
Panama.—**0**, Sears, J. D.; Vaughan, T. W., 5.
Pannonian, Hungary.—**1**, Horusitzky, H., 3.
Panoplosaurus.—**0**, Lambe, L. M.; **2**, Sternberg, C. M.
Papago area (Ariz.).—**2**, Bryan, K., 2.
Papaver.—**2**, Fritel, P. H.
Pappocetus.—**0**, Andrews, C. W., 3.
Papua.—**0**, Australia, 1, 2; Stanley, E. R.; **1**, Australia, 1, 2.
Paradoxides.—**2**, Smetana, V.
Paradoxite.—**2**, Schueler, W.
Paraffin-wax, in coal.—**0**, Sinnatt, F. S.
Paragenesis.—**1**, Niggli, P., 2.
——, Brazil.—**1**, Arlt, H.
——, Harz.—**2**, Erdmannsdœrffer, O. H., 3; Stahl, A.
——, iron ores.—**2**, Gruner, J. W.; Newland, D. H.
Para-gneiss, S. Australia.—**1**, Tilley, C. E., 2.
Paraguay.—**1**, Beder, R.
Parahoplites.—**0**, Oppenheimer, J.
Parainen. *See* Pargas.
Parallelohedra systems.—**2**, Beckenkamp, J.
Paraná (Brazil).—**0**, Holdhaus, K.; **2**, Oliveira, E. P. de.
Paranomia.—**1**, Douvillé, H., 22.
Parasuchia.—**2**, Huene, F. v., 12, 14.
——, Trias.—**0**, Case, E. C.; Drevermann, F., 4; **1**, Case, E. C.; **2**, Huene, F. v., 9.
——. *See also* Phytosauria *&* Pseudosuchia.
Pargas (Finland).—**1**, Laitakari, A.
Paris.—**2**, Dollfus, G. F., 2; Dollot, A., 1–3.
Paris Basin.—**0**, Dollfus, G. F., 9; **1**, Dollfus, G. F., 9, 10; Randoin, —.
—— ——, Cretaceous.—**0**, Zahálka, C.; **1**, Kilian, W., 2; **2**, Corroy, G., 2, 3; Lambert, J., 1, 2.
—— ——, peneplains.—**0**, Denizot, G., 2, 3; **1**, Denizot, G., 3.
—— ——, Quaternary-Tertiary.—**0**, Dollfus, G. F., 7; **1**, Dollot, A., 1–6; Stamp, L. D., 6; **2**, Abrard, R.
Paris Creek (S. Austr.).—**2**, Ward, L. K., 2.
Parisite.—**0**, Aminov, G.
Parka.—**0**, Don, A. W. R.; **1**, Edwards, W. N., 2.
Paroxynoticeras.—**0**, Pia, J. v.
Parwan (Vict.).—**0**, Ferguson, W. H., 3.
Pas-de-Calais (France).—**1**, Briquet, A.; Galle, L.; Pontier, G.; **2**, Dubois, G.; Stieler, C., 3.
——, Coal Measures.—**1**, Bertrand, P., 3; Pruvost, P., 3, 4, 6.
——, Devonian.—**0** & **1**, Robinson, J. W. D.
——. *See also* Boulonnais.
Pascoite.—**1**, Hillebrand, W. F.
Pasipas (S. Rhod.).—**0**, Molyneux, A. J. C., 2.
Pasterzen glacier (Carinthia).—**0**, Angerer, H., 1, 5; **1**, Lucerna, R.
Pasubio, Mte. (Trentino).—**2**, Fabiani, R., 5.
Patagonia.—**0**, Reichert, F.; Schiller, W.; **1**, Rovereto, G., 2; Windhausen, A.; **2**, Fenton, E. G.; Wilckens, O., 2; Windhausen, A., 2.
Patea (N.Z.).—**2**, Morgan, P. G.
Patella.—**0**, Bœhm, J., 7.
Paternoite.—**0**, Millosevich, F., 3; **1**, Wherry, E. T., 3.
Paterson (N.S.W.).—**2**, Osborne, G. D.
Patria, L. (Campania).—**2**, Comanducci, E.
Patricia (Ont.).—**2**, Burwash, E. M.
Paulocaris.—**1**, Clarke, J. M., 3.
Pavia (Lombardy).—**1**, Taramelli, T., 2.
Paviland (Glamorgan).—**0**, Sollas, W. I.
Paving-stones, Icelandic, in Yorkshire.—**1**, Lamplugh, G. W., 2.
Pavonitina.—**0**, Schubert, R. J.
Payette formation, Idaho-Oregon.—**2**, Chaney, R. W.
Peace R. area (B.C.).—**0**, Uglow, W. L., 4; **1**, McLearn, F. H., 2.
Peak Hill (W. Austr.).—**1**, Montgomery, A.
Pearls.—**2**, Fox, C. S., 3.
——, fossil.—**2**, Marwick, J., 2.
Peat.—**0**, United States, 8; **1**, Imperial Mineral Resources Bureau, 15; Pearsall, W. H., 2; Stevenson, J. J.; **2**, Dachnowski, A. P.; Whitaker, E. D.

Peat, Belgium.—**1**, Velge, G.
——, Canada.—**2**, Anrep, A., 3.
——, Cheshire.—**2**, Travis, W. G.
——, Germany.—**1**, Hess von Wichdorff, H. ; Korn, J., 6 ; Tornau, F., 3 ; Wolff, W., 1, 4 ; **2**, Wolff, W., 2.
——, Ireland.—**0**, Purcell, P. F. ; **1**, Great Britain, 2 ; **2**, Fletcher, G.
——, Ladoga L. area.—**0**, Ailio, J.
——, Poland.—**1**, Cramer, R. ; Korn, J., 6.
——, Sweden.—**1**, Hœgbom, A. G. ; **2**, Halden, B. E., 2 ; Post, L. v.
——, United States.—**0**, Osbon, C. C. ; Soper, E. K. ; **1**, United States, 9.
——, Yorkshire.—**1**, Burrell, W. H.
——, analyses.—**0**, Great Britain, 5 ; **2**, Doliński, J.
——. *See also* 'Moorlog.'
Peat-bogs.—**0**, Andersson, G. ; Steenstrup, Japetus ; **2**, Œyen, P. A., 6.
—— - ——, Calvados.—**0**, Gidon, F. ; **1**, Mercier, L.
—— - ——, Ceylon.—**1**, Keilhack, K., 2.
—— - ——, Denmark.—**1**, Jessen, A., 2 ; Jessen, K.
—— - ——, Faroe Is.—**2**, Jessen, K.
—— - ——, Madagascar.—**2**, Perrier de la Bathie, H.
—— - ——, Norway.—**0**, Œyen, P. A., 3 ; **1**, Œyen, P. A. ; **2**, Holmsen, G., 3.
—— - ——, Ontario-Quebec.—**1**, Anrep, A. ; **2**, Anrep, A., 1, 2.
—— - ——, Swabia.—**1**, Dittus, D.
—— - ——, Sweden.—**1**, Erdtman, G., 2 ; **2**, Sernander, R. ; Sweden, 2.
—— - ——, Tanganyika.—**2**, Krenkel, E.
Pebble-beds, S. England. — **0**, Whitaker, W., 4.
Pebble-clay-slates, Thuringia. — **0**, Zimmermann, E.
Pebbles.—**0**, Hewitt, W., 3 ; **1**, Wentworth, C. K. ; **2**, Wentworth, C. K., 3.
——, Dorset.—**0**, Prior, E. S.
——, France.—**2**, Collin, L., 3 ; Pfender, J.
——, Namur.—**2**, Kaisin, F.
——, in 'banket,' Transvaal.—**1**, Mellor, E. T. ; Pirow, H.
——, in basalt-tuff, Württemberg.—**0**, Bræuhæuser, M., 2.
——, in Bunter, Liverpool area.—**0**, Jones, T. A., 2.
——, in coal, Belgium.—**0**, Bellière, M., 4 ; **1**, Stainier, X., 2.
——, in Drift, Gloucestershire.—**1**, Gray, J. W.
——, flint, Kent.—**2**, Leach, A. L.
——, fractured, I. of Man.—**2**, Whitehead, W. A.
——, glaciated, Victoria.—**0**, Skeats, E. W., 3.
Pebbles, in Gosau beds, Lower Austria.—**1**, Ampferer, O.
——, indented.—**0**, Kumm, A. ; **1**, Kessler, P., 3 ; **2**, Kegel, W. ; Kessler, P.
——, in Millstone Grit, Yorkshire.—**0**, Gilligan, A.
——, in Molasse, Bavaria.—**1**, Cornelius, H. P., 2.
——, quartzite, London Basin.—**0**, Baker, H. A.
——, rhyolitic, Antiqua.—**0**, Anon., 41.
——, striated, N. China. — **2**, Lee, J. S.
——. *See also* Dreikanter.
Péchelbronn (Alsace).—**1**, Gignoux, M., 2 ; **2**, Gignoux, M., 4.
'Pechkohle,' Bavaria.—**2**, Stutzer, O., 2.
Peckhamite.—**0**, Merrill, G. P., 6 ; **2**, Merrill, G. P., 4.
Pecten. — **0**, Blanckenhorn, M. ; Bœhm, J., 3 ; Teppner, W. v. ; **1**, Bœhm, J., 11 ; Checchia-Rispoli, G., 2 ; **2**, Reck, H.
Pectinidæ.—**0**, Dollfus, G. F., 4, 21.
Pediments, erosion.—**0**, Bryan, K., 2.
Pedina.—**0**, Ammon, L. v.
'Pedregullo,' Argentina.—**0**, Witte, L.
Peebles-shire.—**0**, Day, T. C., 1, 2.
Pegmatite.—**0**, Simmersbach, B., 2 ; **1**, Kœnigsberger, J., 2 ; **2**, Campbell, J. M., 3.
——, Argyll.—**2**, Jehu, T. J.
——, Dobrogea.—**2**, Cantuniari, S., 3.
——, Fennoscandia.—**0**, Holmquist, P. J.
——, Germany.—**0**, Harbort, E. ; **1**, Guerich, G. ; Laubmann, H.
——, India.—**0**, Vredenburg, E. W., 5.
——, Italy (N.).—**1**, Repossi, E., 8 ; **2**, Roccati, A., 3.
——, Madagascar.—**2**, Lacroix, A., 2.
——, New South Wales.—**2**, Andrews, E. C.
——, Nigeria.—**2**, MacLachlin, D. K. F. ; Whitehead, P. W.
——, Norway.—**0**, Vogt, T., 5.
——, Portuguese E. Africa. — **0**, Holmes, A., 11.
——, Slovakia.—**1**, Kulcsár, K., 3.
——, S. Australia.—**0**, Tilley, C. E., 2.
——, S.-W. Africa.—**2**, Hueser, — ; Westphal, H.
——, Sweden.—**0**, Orton, B. ; **1**, Holmquist, P. J., 10 ; **2**, Eckermann, H. v.
——, Tatra Mts.—**2**, Morozewicz, J.
——, United States (N.E.).—**0**, Miller, W. J., 3 ; Shannon, E. V., 5 ; **2**, Ries, H.
——, gabbro. *See* Gabbro-pematite.
——, granitic.—**2**, Gordon, S. G.
——, radium-bearing, Ontario. — **2**, Ellsworth, H. V.

Peissenberg (Bavaria).—**0**, Gillitzer, G.
Pejark Marsh (Vict.).—**0**, Walcott, R. H.
Pelagosite.—**0**, Millosevich, F., 2.
Peldar Tor (Leics).—**1**, Richardson, W. A., 3.
Pelée, Mt. (Martinique).—**1**, Mercalli, G.
Pelion, Mt. area (Tasmania).—**0**, Reid, A. M.
Pellegrino, Mte. (Sicily).—**2**, Wepfer, E., 4.
Pellodites, till.—**0**, Lane, A. C., 3.
Peloneustes.—**2**, Hutchinson, H. N.
Pembrokeshire.—**0**, Leach, A. L. ; **1**, Dixon, E. E. L. ; **2**, Part, G. M.
Pendling, Mt. (Tyrol).—**2**, Leuchs, K., 4.
Pendulum, seismograph.—**1**, Oddone, E., 4.
Peneplains, Paris Basin.—**0**, Denizot, G., 2, 3 ; **1**, Denizot, G., 3.
——, United States.—**0**, Barrell, J. ; **1**, Bascom, F. ; Cleland, H. F., 2 ; **2**, Lee, W. T.
——, W. Australia.—**0**, Woolnough, W. G.
Peneplanation, erosion &.—**1**, Rovereto, G., 3.
Peninsulas, ‘ dumb-bell,’—**0**, Schofield, W.
Penmaenmawr (Carnarvonsh.). — **1**, Warren, S. H., 2.
Pennant series, Glamorgan. — **2**, Heard, A.
Pennsylvania (U.S.A.).—**0**, White, I. C. ; Williams, E. H., *fil.* ; **1**, Bascom, F., 1, 2 ; **2**, Balch, E. S. ; Covert, C. C. ; Wanner, H. E.
—— (——), igneous & metamorphic rocks.—**0**, Jonas, A. I. ; **1**, Gordon, S. G., 3 ; **2**, Gordon, S. G. ; Knopf, E. B.
—— (——), mineral resources.—**0**, Wherry, E. T., 2 ; **1**, Chance, H. M. ; **2**, Gordon, S. G., 2 ; Johnson, R. H., 3 ; Kemp, J. F., 5 ; Knopf, E. B., 2 ; United States, 9.
—— (——), minerals.—**0**, McKinstry, H. E. ; **1**, Gordon, S. G., 2 ; Jandorf, M. L. ; McKinstry, H. E., 2.
—— (——), Palæozoic.—**0**, Peck, F. B. ; Reeside, J. B., *fil.* ; Swartz, C. K. ; **1**, Stauffer, C. R., 2.
Pennsylvanian, United States.—**0**, Hinds, H., 2 ; Knight, S. H. ; McCourt, W. E. ; **1**, Powers, S. ; Stout, W., 3 ; Weidman, S. ; **2**, Dobbin, C. E. ; Moore, R. C., 2, 4 ; Morningstar, H. ; Tilton, J. L.
Pensberg (Bavaria).—**2**, Stutzer, O., 3.
Penthièvre (Morbihan).—**0**, La Porte, F.
Pentremites.—**0**, Ulrich, E. O.
Pepinster (Liége).—**1**, Maillieux, E., 2.
Perak (Malaya).—**2**, Romang, M.
Peratherium.—**2**, Stock, C., 2.
Percolation.—**2**, Liesegang, R. E., 4.
——, sub-soil.—**2**, Standley, A. W. E.
Percussion waves, strata &.—**2**, Evans, J. W., 7.
Pereta (Tuscany).—**2**, Ermisch, K.
Periarchus.—**0**, Hopkins, O. B., 3.
Periclase.—**1**, Schiebold, E. ; **2**, Muegge, O., 12.
Pericosmus.—**1**, Airaghi, C., 7.
Peridot. *See* Chrysolite.
Peridotite, Borneo (Dutch).—**1**, Krol, L. H.
——, Finland.—**1**, Frosterus, B., 3.
——, Lombardy.—**1**, Repossi, E., 11.
——, Moravia.—**0**, Kretschmer, F.
——, N. Carolina.—**2**, Knopf, E. B., 2.
——, Norway.—**0**, Carstens, C. W. ; **2**, Carstens, C. W. ; Goldschmidt, V. M., 6.
——, Serbia.—**2**, Hammer, W.
——, Styria.—**1**, Kittl, E.
——, Valais.—**1**, Bartholmès, F.
Perimorphs, barytes.—**0**, Behr, F. M., 3.
Peripterocrinus.—**0**, Wanner, J., 2.
Perisphinctes.—**2**, O'Connell, M.
Perisphinctinæ. — **0**, O'Connell, M., 2.
Perissodactyla.—**0**, Osborn, H. F., 1, 6 ; **1**, Stehlin, H. G.
Perm (Russia).—**0** & **2**, Duparc, L., 3.
Permeability of rocks, Italy (N.).—**0**, Caffaratti, M. ; Fabiani, R. ; **2**, Fabiani, R., 5.
Permian, Argentina.—**2**, Keidel, J.
——, Asia Minor.—**0**, Fliegel, G.
——, Belgium.—**1**, Renier, A., 2.
——, Brazil.—**0**, Holdhaus, K.
——, Chihli.—**2**, Grabau, A. W.
——, Durham.—**0**, Robson, S. ; **1**, Holtedahl, O. ; Trechmann, C. T., 2.
——, E. Indies.—**0**, Van Es, L. J. C. ; **1**, Haaniel, C. A. ; **2**, Wanner, C.
——, Elgin.—**1**, Watson, D. M. S., 4.
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——, France.—**1**, Glangeaud, P. ; Zurcher, P.
——, Germany.—**1**, Beyschlag, F., 3 ; Bœhne, E. ; Brandes, T. ; Kaiser, E., 3, 4 ; Krause, P. G., 2 ; Naumann, E. ; Pompeckj, J. F. ; **2**, Born, A., 3.
——, Italy (N.).—**1**, Pretto, O. de ; **2**, Fabiani, R., 5.
——, Kashmir.—**0**, Gortani, M., 2.
——, Mexico.—**0**, Haack, W. ; **1**, Bœse, E., 2.
——, Midlands.—**2**, Whitehead, T. H.
——, Poland.—**1**, Gœtel, W.
——, Slovakia.—**1**, Ferenczi, S., 1, 2 ; Posewitz, T. ; Vigh, J., 3.
——, Staffordshire.—**2**, Kay, H.

Permian, Switzerland.—**0**, Staub, R., 2.

——, United States.—**0**, Bosworth, T. O.; Dake, C. L., 2; Gregory, H. E., 2; Lee, W. T., 3; **1**, Darton, N. H., 2; Rich, J. L., 2; **2**, Clapp, F. G.; Reeves, F.; Robinson, H. M.; Thompson, D. G., 2; Udden, J. A.

——, Yorkshire.—**1**, Bisat, W. S.

——, Yugoslavia.—**0**, Lange, E.; **1**, Vogl, V.

——. *See also* Dunkard series, Zechstein, *&c.*

Permo-Carboniferous.—**1**, Sussmilch, C. A.

——-——, Croatia.—**1**, Koch, F., 1, 2.

——-——, French Indo-China.—**0**, Mansuy, H., 4; **2**, Bourret, R.

——-——, Kashmir.—**0**, Gortani, M., 2.

——-——, New South Wales.—**1**, Sussmilch, C. A.

——-——, New Zealand.—**0**, Morgan, P. G.; Speight, R., 4.

——-——, glaciation.—**0**, Eckardt, W. R.; **1**, Howchin, W., 9.

——-——. *See also* Anthracolithic *&* Uralo-Permian.

Permo-Trias, Arizona.—**0**, Shimer, H. W., 3.

——-——, Armenia.—**0**, Bonnet, P., 1, 2.

——-——, Himalayas.—**0**, Bonnet, P., 1, 2.

Perna-bed, Surrey.—**2**, Butler, G. W.

Pernatherium.—**1**, Stehlin, H. G.

Péronnes (Hainault).—**2**, Bataille, L., 2.

Persány Mts. (Transylvania).—**0**, Pálfy, M. v.; Wachner, H.; **1**, Vadász, M. E., 2; Wachner, H., 2, 3.

Persia.—**0**, Kirsopp, J.; Shand, S. J.; **1**, Great Britain; Tipper, G. H.; **2**, Dietrich, W. O., 2; Frech, —; Hunter, C. M.; Krumbeck, L., 4.

Perth museum.—**2**, Asher, J.

Perthite. *See* Microperthite.

Perthshire.—**1**, Coates, H.; Read, H. H.; **2**, McLintock, W. F. P.

Peru.—**0**, Bosworth, T. O., 3; **1**, Bosworth, T. O., 2; **2**, Berry, E. W., 7, 20; Bosworth, T. O.; Eigenmann, C. H.; García, P.; Portocarrero, J. N.

——, coal.—**0**, Campbell, W.; **1**, Dueños, E. I.; **2**, Santolalla, F. M.

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——, mineral production.—**0**, **1**, & **2**, Jimenez, C. P.

Peru, mineral resources.—**0**, Basadre, C.; **1**, Alvarado, A.; Fuchs, F. G.; Jochamowitz, A.; Mariátegui, G. R.; Pfluecker, L. A.; Simmersbach, B., 3; **2**, Romero, C. L.; Zevallos, G. D.

——, petroleum.—**2**, Deustua, R. A.; Marsters, V. F., 1, 2.

——, Tertiary.—**0**, Bosworth, T. O., 2; Douvillé, H., 10; Woods, H., 2; **1**, Bosworth, T. O.; Douvillé, H., 19; **2**, Berry, E. W.; Spieker, E. M.

Petrogenesis.—**1**, Heeger, W.; **2**, Bowen, N. L., 3; Morey, G. W.

Petrographic methods.—**1**, Holmes, A.

—— provinces.—**2**, Niggli, P., 7.

Petrography, alcyonaria &.—**1**, Cayeux, L., 4.

——, erratics.—**0**, Jones, T. A., 1, 4.

——, microscopic.—**2**, Wright, F. E.

——, Millstone Grit.—**0**, Gilligan, A.

——, nomenclature.—**1**, Tyrrell, G. W.; Watts, W. W., 4.

——, refractories.—**0**, Thomas, Herbert H., 2.

——, Swiss building-stones.—**0**, Niggli, P.

——, teaching of.—**1**, Kemp, J. F.

——, text-book. — **2**, Rosenbusch, H.

——, volcanic rocks.—**0**, Tsuboi, S.

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Petroleum.—**0**, Blumer, E., 1, 2; Marbery, C. F.; Mills, R. v. A.; **1**, White, I. C., 2; **2**, Redwood, B.; Smith, G. O., 2; White, D.

——, Africa (N.).—**2**, Dalloni, M., 6.

——, Alabama.—**0**, Hopkins, O. B., 3; **1** & **2**, Semmes, D. R.

——, Alaska.—**1**, Martin, G. C.

——, Alberta.—**0**, Dowling, D. B.; **1**, Slipper, S. E.

——, Argentina.—**0**, Herold, S. C.; Schiller, W.; **1**, Hileman, G.; **2**, Herold, S. C.; Windhausen, A.

——, Arkansas.—**0**, Miser, H. D., 4; **2**, Anon., 32.

——, Belgium.—**2**, Asselberghs, E.

——, Bolivia.—**0**, Herold, S. C.; **2**, Holland, A. A.

——, Brazil.—**2**, Oliveira, E. P. de; Williams, H. E.

——, British Columbia.—**1**, Stewart, J. S.

——, British Empire.—**0**, Cadman, J.

——, California.—**0**, English, W. A.; Kew, W. S. W.; Pack, R. W.; Rogers, G. S., 3; **1**, English, W. A.; **2**, Rademacher, R.

——, Canada.—**1**, Dowling, D. B., 1. 2, 4; Ness, J.

——, Central America.—**2**, Milner, H. B., 4; White, D., 2.

——, Chile.—**1**, Felsch, J., 2.

Petroleum, Colombia.—**1**, Beck, E. ; **2**, Hirschi, H. ; Huntley, L. G.
——, Czechoslovakia.—**2**, Jahn, J. J.; Kettner, R., 4.
——, Derbyshire.—**2**, Asselberghs, E.
——, E. Indies.—**0**, Oppenoorth, W. F. F., 2 ; **1**, Australia, 2 ; Kewley, J. ; Loth, J. E. ; Reijzer, J. ; Ziegler, K. G. J. ; **2**, Hotz, W. ; Jezler, H. ; Redfield, A. H. ; Smith, W. D., 1, 3, 4.
——, Ecuador.—**2**, Marsters, V. F., 3.
——, Egypt.—**0**, Hume, W. F., 1–5 ; Madgwick, T. G. ; **1**, Hume, W. F., 3, 6 ; Madgwick, T. G. ; Milner, H. B., 4 ; **2**, Moon, F. W.
——, Europe.—**0**, Grabau, A. W., 4.
——, France.—**0**, Dollfus, G. F., 20 ; Werveke, L. v., 20 ; **1**, Gignoux, M., 2 ; **2**, Finaton, C. ; Gignoux, M., 4 ; Heim, Arnold.
——, Germany (N.W.).—**0**, Guerich, G., 3 ; **1**, Kœrt, W.
——, Great Britain.—**0**, Strahan, A., 4 ; **1**, Anon., 17 ; **2**, Veatch, A. C.
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——, Haiti.—**2**, Woodring, W. P.
——, India (N.W.).—**0**, Pinfold, E. S. ; **1**, Pascoe, E. H. ; Preiswerk, H.
——, Indiana.—**2**, Bownocker, J. A.
——, Iraq.—**1**, Great Britain ; **2**, Frech, — ; Milner, H. B., 5 ; Pascoe, E. H.
——, Italy.—**1**, Segrè, C. ; **2**, Stefani, C. de, 2 [3].
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——, Kansas.—**2**, Moore, R. C., 3.
——, Kentucky.—**0**, Butts, C., 4 ; Crider, A. F. ; Fœrste, A. F. ; Hoeing, J. B. ; Hutchinson, F. M., 2 ; Jillson, W. R., 1, 2, 5, 7 ; Miller, A. M., 3 ; Munn, M. J. ; Rhodes, E. O. ; Shaw, E. W., 1, 4 ; **1**, Jillson, W. R., 2, 3, 5, 6, 9, 10, 13–16, 19, 21, 23, 25 ; **2**, Glenn, L. C. ; Jillson, W. R., 2, 3, 7, 11 ; St. Clair, S., 1, 2 ; Weller, S., 2.
——, Lousiana.—**0**, Bates, M. ; Matson, G. C., 3.
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——, Manitoba.—**0**, Dowling, D. B.
——, Mexico.—**0**, Ordoñez, E. ; Paredes, T. ; Shaw, E. W., 3 ; **1**, Bustamante, M. ; Huntley, L. G. ; Paredes, T. ; Quensel, P., 2 ; Redfield, A. H., 2 ; **2**, Beal, C. H. ; Ibarrola, A. M. de.
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——, Missouri.—**0**, Wilson, M. E.
——, Montana.—**0**, Collier, A. J. ; Hancock, E. T., 1, 2 ; Stebinger, E., 1, 2 ; **2**, Thom, W. T., *fil.*
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——, New Zealand.—**1**, Henderson, J., 3, 5 ; **2**, Morgan, P. G., 4, 8, 11 ; Ongley, M., 1, 2.
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——, Oklahoma.—**0**, Beal, C. H. ; Fath, A. E. ; Heald, K. C. ; Stephenson, L.W. ; **2**, Clapp, F. G.; Hopkins, O. B. ; Howell, J. V. ; Reeves, F. ; Robinson, H. M.
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——, Pacific area.—**2**, White, D., 3.
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——, Peru.—**1**, Simmersbach, B., 3 ; **2**, Bosworth, T. O. ; Deustua, R. A. ; Marsters, V. F., 1, 2.
——, Poland.—**1**, Teisseyre, W., 2 ; **2**, Friedl, K., 2 ; Nowak, J.
——, Queensland.—**1**, Anon., 22 ; Jensen, H. I. ; **2**, David, T. W. E. ; Jensen, H. I., 3, 5 ; Morton, C. C.
——, Romania.—**0**, Gwinner, A. v. ; **2**, Botez, G., 4 ; Mrazec, L., 3 ; Ostrogovich, A.
——, Russia.—**0**, Bonnet, P., 3 ; **2**, Simmersbach, B., 3 ; Thompson, A. B.
——, Saskatchewan.—**0**, Dowling, D. B. ; **1**, McInnes, W.
——, Scotland.—**0**, Cadell, H. M., 2.
——, Siberia.—**2**, Thompson, A. B.
——, S. America.—**1**, Milner, H. B., 2 ; **2**, White, D., 2.
——, S. Australia.—**1**, Ward, L. K., 3, 6 ; **2**, Ward, L. K.
——, S. Dakota.—**0**, Morse, R. R.
——, Switzerland.—**0**, Heim, Arnold, 4 ; Schmidt, C., 1, 2.
——, Tennesee.—**2**, Glenn, L. C.
——, Texas.—**0**, Hager, D. ; Hopkins, O. B., 1, 2 ; Matson, G. C., 4 ; Stephenson, L. W. ; **2**, Dobbin, C. E. ; Hopkins, O. B. ; Ross, C. S.
——, Trinidad.—**0**, Anon., 31 ; **1**, Milner, H. B., 3 ; **2**, Macready, G. A.
——, Uganda.—**1**, Simmons, W. C., 2.
——, United States.—**0**, Grabau, A. W., 2 ; United States, 4–6, 8.
——, Utah.—**0**, Clark, F. R., 2 ; **2**, Bassler, H.
——, Venezuela. — **1**, Redfield, A. H.

Petroleum, W. Indies.—**2**, Milner, H. B., 4.
——, W. Australia.—**0**, Clarke, E. de C., 5; Maitland, A. G.; **1**, Maitland, A. G., 2; **2**, Blatchford, T.; Hautpick, E. de 2; Maitland, A. G., 2.
——, Wyoming.—**0**, Collier, A. J., 5, 7; Hancock, E. T., 3, 4; Hares, C. J.; Hewett, D. F., 4; Wegemann, C. H.; **1**, Hancock, E. T.; Schultz, A. R.
——, accumulation.—**0**, Hutchinson, F. M., 2; McCoy, A. W.; Washburne, C. W.; Ziegler, V.; **1**, Gentil, L., 3; Rich, J. L.; **2**, Blackwelder, E.; Bonine, C. A.; Rich, J. L.; Skirvin, O. W.
——, ——, anticlines &.—**2**, Craig, E. H. C., 3; Gregory, J. W., 3; Hautpick, E. de.
——, ——, shore-lines &.—**0**, Jones, W. F.; Lahee, F. H., 2.
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——, bibliography.—**1**, Frankforter, C. J.
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——, fossil wood &.—**1**, Stuart, M.
——, geology &.—**1**, Arnold. R.; Cox, G. H.; **2**, Newbery, —.
——, migration.—**2**, Dodd, H. V.; Henglein, M.; Muehlen, L. v. z.
——, origin.—**0**, Clarke, F. W.; Stigand, I. A.; **1**, Gentil, L., 3; Hixon, H. W.; **2**, Durand, J. F.; Rae, C. C., 1, 2; Takahashi, J.
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——, reserves of.—**2**, Golyer, E. de; Veatch, A. C., 2.
——, salt-deposits &.—**2**, Fulda, E.
——, text-book.—**0**, Craig, E. H. C.
——, water &.—**0**, Hager, D., 2; Mills, R. Van A., 2; Neal, R. O.; Rogers, G. S., 3; **1**, Doliński, J., 2; **2**, Tănăsescu, I., 1, 2.
——. *See also* Oil-fields, Oil-sands, *&c.*
Petroliferous provinces.—**2**, Woodruff, E. G.
—— sediments. *See* Sediments.
Petrology, microscope for.—**0**, Evans, J. W.
——, models illustrating.—**2**, Niggli, P., 2.
——, nomenclature.—**0**, Holmes, A., 14; **1**, Shand, S. J.
——, text-book.—**1**, Harker, A.
Petrosilex. *See* Felsite.
Pewsey Vale (Wilts).—**1**, Varney, W. D.
Pfahl. *See* Der Pfahl.
Pfalz (Germany).—**0**, Reis, O. M., 2; **1**, Freudenberg, W.; Steinmetz, H., 2; **2**, Matthiass, W. *See also* Oberpfalz.
Pfänder, Mt. (Vorarlberg).—**2**, Joos, C. H.
Pfirt (Alsace).—**0** & **1**, Grahmann, R.
Pharos (Egypt).—**1**, Négris, P.
Phenacite.—**0**, Russell, A.; **1**, Busz, K., 2; **2**, Henglein, M., 2.
Phenocrysts, orthoclase.—**1**, Johnsen, A.
Phenol-red, geology &.—**0**, Wherry, E. T., 4.
Phialophloios.—**1**, Hœrich, O.
Philippine Is.—**0**, Philippine Islands; **1**, Smith, W. D., 2; **2**, Dickerson, R. E., 1, 3; Fehlinger, H.; Philippine Islands; Schenck, H. G., 1, 2; Smith, W. D., 1–4.
Phillipsite.—**2**, Kœnigsberger, J., 2.
Phlegrean Fields. *See* Campi Flegrei.
Phlogopite.—**2**, Wagner, P. A., 2.
Pholidocidaris.—**0**, Bather, F. A., 2.
Phonolite.—**2**, Blanck, E.
——, Germany.—**1**, Grupe, O., 4; **2**, Hopmann, P. M.; Niggli, P., 9.
——, Haddingtonshire.—**2**, Macgregor, A. G.
——, Hungary.—**1**, Mauritz, B.
——, Kenya.—**2**, Gregory, J. W.
——, nosean-, Rheinland.—**2**, Brauns, R., 13; Zaentini, W.
——, trachytoid-, Portuguese E. Africa.—**0**, Holmes, A., 9.
Phonolitic rocks, Rheinland.—**2**, Brauns, R., 13.
—— rhyolite. *See* Rhyolite.
—— trachyte. *See* Trachyte.
Phosgenite.—**0**, Goldschmidt, V.
Phosphate-beds.—**0**, Russo, P.; **2**, Goldman, M. I.
—— nodules. *See* Nodules.
Phosphates.—**0**, Grabau, A. W., 5; **1**, Merwin, H. E., 2; **2**, Power, F. D.
——, Africa (N.).—**1**, Brives, A.; Savornin, J., 2; **2**, Brives, A., 3; Gentil, L., 1, 5; Joleaud, L., 5; Launay, L. de.
——, Bukowina.—**0**, Groszpietsch, O.
——, Canada.—**1**, Spence, H. S.
——, Danzig.—**1**, Jentzsch, A., 5.
——, Germany.—**1**, Jentzsch, A., 5; Kluepfel, W., 2; Laubmann, H.
——, Java.—**1**, Mannhardt, F. G.
——, Ocean I.—**1**, Owen, L.
——, Palestine.—**1**, Artini, E., 4.
——, Poland (N.W.).—**1**, Jentzsch, A., 5.
——, S. Australia.—**1**, Jack, R. L., 4; Winton, L. J.
——, Styria.—**2**, Bœhne, E.; Schadler, J.
——, Sweden.—**2**, Geijer, P., 1, 2.

Phosphates, United States. — **0**, Fœrste, A. F., 5 ; Pardee, J. T. ; Phalen, W. C. ; Schultz, A. R., 1, 2 ; United States, 4–6, 8 ; **1**, Mansfield, G. R. ; Pardee, J. T. ; **2**, United States, 11, 13.

——, Victoria.—**0**, Howitt, A. M., 3 ; Skeats, E. W., 10.

——, Yonne.—**1**, Hure, A.

——, world's production & resources. —**1**, Imperial Mineral Resources Bureau, 18 ; United States, 9 ; **2**, Goldschmidt, V. M., 9.

Phosphoferrite.—**1**, Wherry, E. T., 7.

Phosphophyllite.—**1**, Wherry, E. T., 7.

Phosphorite.—**0**, Gagel, C., 5.

——, Lorraine.—**1**, Bernauer, F.

——, Poland.—**2**, Kaunhowen, F.

——, Prussia.—**2**, Heberle, W.

——, Ukraine.—**2**, Kaunhowen, F.

Phosphorus, in iron-ore.—**0**, Cayeux, L., 5.

——, in petroleum.—**2**, Palmer, C.

Photographs, contact, of coal.—**2**, Haslam, G. S.

——, geological.—**0**, Bull, A. J. ; **2**, British Association Committee, 3, 9 ; Hatch, F. H. ; Wentworth, C. K.

Photography, aircraft.—**0**, Thomas, H. Hamshaw.

Phragmites.—**0**, Fritel, P. H., 2.

Phragmoceras.—**2**, Prell, H., 2.

Phtanite, Liége.—**1**, Anten, J., 3.

Phycodes.—**2**, Beck, R., 2.

Phyllites.—**1**, Brammall, A.

——, Alps (Central).—**0**, Sander, B., 5.

——, Austria.—**0**, Hammer, W., 2, 8 ; **1**, Mohr, H., 3.

——, Norway.—**2**, Goldschmidt, V. M., 10.

——, Saxony.—**0**, Pietzsch, K., 2.

——, Uruguay.—**2**, Walther, K., 3.

——, quartz-, Styria.—**1**, Kittl, E.

Phyllites.—**2**, Colani, M., 2.

Phyllocarida.—**2**, Riabinin, A. ; Ruedemann, R., 2.

——, Devonian.—**1**, Hennig, E. ; Jækel, O., 2 ; Richter, R., 2 ; **2**, Hennig, E., 6.

——, Ordovician.—**0**, Bassler, R. S.

——, Silurian.—**2**, Kiær, J., 3.

Phylloceras.—**1**, Yabe, H., 2.

Phyllopoda, Coal Measures.—**0**, Pruvost, P., 6 ; Wright, M. C. ; **1**, Pruvost, P., 3.

——, Ordovician.—**0**, Bassler, R. S.

——, Permian.—**2**, Ruedemann, R., 4.

——, Trias.—**2**, Mansuy, H., 11.

Physa.—**0**, Annandale, N.

Physiography.—**2**, Baschin, O., 5 ; Jessen, O. ; Smith, B.

——, aircraft photography &.—**0**, Thomas, H. Hamshaw.

——, chalk &.—**0**, Gentil, L., 3.

——, erosion &.—**1**, Schaffer, F. X.

——, frost &.—**0**, Behr, F. M., 2.

Physiography, geology &.—**0**, Branca’ W. ; Penck, A.

——, ice &.—**2**, Baschin, O., 3.

——, man's influence on.—**2**, Sherlock, R. L.

——. *See also* Rivers, Valleys, *&c.*

Phytosauria.—**2**, Mehl, M. G.

Phytosaurus.—**0**, Case, E. C.

Pian Real, Mte. (Piedmont).—**1**, Boeris, G., 2, 3.

Pianosa I. (Tuscany).—**1**, Crema, C., 6 ; **2**, Caterini, F.

Piave R. (Venetia).—**1**, Taramelli, T., 6.

—— basin (Venetia).—**0**, Dal Piaz, G., 2 ; **2**, Dal Piaz, G., 3.

Picardy (France).—**1**, Briquet, A., 4–6.

Pickeringite.—**1**, Zsivny, V.

Picrite, Devon.—**2**, Shannon, W. G. St. J., 2.

——, Lower Austria.—**0**, Grengg, R.

——, Portuguese E. Africa. — **0**, Holmes, A., 7.

Picton (N.Z.).—**2**, Morgan, P. G., 3.

Piedmont (Italy).—**0**, Baggi, V. ; Gonsalves, M. ; Sacco, F., 1, 6 ; Spitz, A., 1, 6, 8 ; **1**, Novarese, V. ; Tacconi, E.

—— (——), bibliography.—**0**, Sacco, F., 18.

—— (——), glaciation.—**0**, Sacco, F., 13–15, 21–23, 29, 32, 33 ; **1**, Sacco, F., 3, 5.

—— (——), igneous & metamorphic rocks.—**0**, Franchi, S., 3 ; **1**, Brusoni, A., 2 ; Sacco, F., 2 ; **2**, Bianchi, A. ; Preiswerk, H. ; Roccati, A., 3.

—— (——), mineral resources.—**0**, Sacco, F., 2 ; **1**, Repossi, E., 10 ; **2**, Grill, E., 3 ; Mueller, F. P., 2.

—— (——), minerals.—**1**, Bellini, R., 3 ; Bianchi, A., 1–4 ; Boeris, G., 2, 3 ; Brusoni, A. ; **2**, Grill, E., 1, 4.

—— (——), physiography.—**1**, Alessandri, G. de, 5 ; Pangella, G. ; Ricchieri, G. ; Zuffardi, P., 3.

—— (——), Quaternary.—**0**, Franchi, S. ; Sacco, F., 10, 12 ; **1**, Sacco, F., 4 ; **2**, Negri, G.

—— (——), Tertiary.—**0**, Sacco, F., 11 ; **1**, Lupano, G. ; Patrini, P.

—— (——). *See also* Alps (Maritime).

Piemontite.—**1**, Eitel, W.

‘ Pieninische Klippenzone,’ Austria. —**2**, Trauth, F.

Piet Retief (Transvaal).—**0**, Humphrey, W. A.

Pigments, Victoria.—**2**, Keble, R. A.

——, iron, Quebec,—**1**, Fréchette, H.

——, mineral, E. Canada. — **2**, Fréchette, H.

——, white.—**2**, Goldschmidt, V. M., 8.

Pike's Peak area (Colo.).—**1**, Finlay, G. I.

Pilbara (W. Austr.).—**2**, Simpson, E. S. ; Wilson, R. C., 3.

Pilolite.—**0**, Henderson, J., 3.

Piltdown man.—**0**, Ramstrœm, M.

Pinar del Rio (Cuba).—**0**, Suárez Murias, E. R., 2.

Pindus Mts. (Greece).—**1**, Renz, C.

Pine Creek area (Idaho).—**0**, Jones, E. L. *fil.*

Pingelly (W. Austr.).—**0**, Clarke, E. de C., 5.

Pinite.—**2**, Smyth, L. B., 2.

Pinites.—**1**, Hilbert, R.

Pinneberg (Holstein).—**1**, Wolff, W., 1, 2.

Pinnipedia.—**2**, Kellogg, R.

Pinos I. (Cuba).—**0**, Suárez Murias, E. R.

Piona (Lombardy).—**1**, Ferrari, M.

Piperno, Campania.—**2**, Fiore, O. de, 2.

Pipes, diamantiferous, Brazil.—**0**, Walls, R. R.

——, volcanic. *See* Volcanic pipes.

Pirenidæ.—**2**, Douvillé, H., 7.

Pirna (Saxony).—**0**, Kampfrath, A.

Pisang I. (D.E.I.).—**2**, Brouwer, H. A., 10.

Pisanite.—**2**, Leitmeier, H., 2.

Pisano, Mte. (Tuscany).—**0**, Fossa-Mancini, E., 2 ; **1**, Fossa-Mancini, E., 4 ; **2**, Caterini, F., 2 ; Fossa-Mancini, E., 3 ; Fucini, A., 2.

Pisces.—**0**, Adams, L. A. ; Pompeckj, J. F. ; **1**, Brunati, R., 2 ; Fossa-Mancini, E., 2 ; Woodward, A. S., 1, 2 ; **2**, Eigenmann, C. H. ; Watson, D. M. S. ; Woodward, A. S., 2.

——, Carboniferous.—**0**, Holtedahl, O., 3 ; **1**, Quitzow, W. ; **2**, Fournier, G.

——, Coal Measures.—**1**, Pruvost, P., 6.

——, Cretaceous.—**0**, Chapman, F. ; Clark, W. B., 2 ; Cockerell, T. D. A. ; Jordan, D. S. ; Stanton, T. W., 2 ; **1**, Gilmore, C. W. ; Mariani, E., 2 ; Ravn, J. P. J. ; Rosenkrantz, A., 2 ; **2**, Corroy, G. ; Cottreau, J. ; Erasmo, G. d', 2 ; Martin, H. T.

——, Culm.—**1**, Weigelt, J.

——, Devonian.—**0**, Kiær, J. ; Stensiœ, E. A., 2 ; **1**, Pruvost, P., 5 ; Vieetor, W. ; **2**, Hennig, E., 4 ; Hoffmann, G., 1–3 ; Kiær, J., 4 ; Rogers, I. ; Shannon, W. G. St. J. ; Woodward, A. S.

——, Eocene.—**0**, Schubert, R. J., 2 ; **2**, Fabiani, R., 8 ; Leriche, M., 8 ; Peyer, B. ; Wilson, R. C., 4.

——, Jurassic.—**0**, Roig, M. S., 2 ; **1**, Musper, F.

——, Lias.—**0**, Hennig, E., 5 ; **1**, Hauff, B. ; Schmidt, M., 5.

——, Miocene.—**0**, Erasmo, G. d' ; Fourtau, R., 2 ; Gilbert, J. Z. ; Priem, F., 1, 2 ; Roig, M. S. ; **1**, Arambourg, C. ; **2**, Arambourg, C., 1, 2 ; Erasmo, G. d' ; Jordan, D. S. ; Leriche, M., 2.

Pisces, Neogene.—**1**, Ishiwara, Y. ; **2**, Frenguelli, G., 3 ; Leriche, M.

——, Oligocene.—**0**, Priem, F., 2 ; **1**, Weiler, W. ; **2**, Fabiani, R., 8 ; Leriche, M. ; Weiler, W., 2.

——, Permian.—**1**, Stauffer, C. R., 2.

——, Pleistocene.—**0**, Hay, O. P. ; **2**, Erasmo, G. d', 2 ; Hay, O. P.

——, Pliocene.—**0**, Bell, Alfred, 2 ; Priem, F. ; Sacco, F., 7 ; Stromer, E. ; **2**, Jordan, D. S., 2 ; Leriche, M., 2.

——, Quaternary.—**0**, Bell, Alfred, 2 ; Priem, F.

——, Rhætic.—**2**, Schalch, F., 3.

——, Silurian.—**2**, Kiær, J., 3 ; Perner, J., 2.

——, Tertiary.—**0**, Chapman, F. ; Frenguelli, J. ; Principi, P. ; **1**, Alessandri, G. de, 2 ; Jordan, D. S. ; **2**, Cockerell, T. D. A., 2.

——, Trias.—**0**, Davidson, P. ; Stolley, E., 2 ; Stromer, E., 4 ; **1**, Alessandri, G. de, 6, 7 ; **2**, Stensiœ, E. A. ; Wanner, H. E.

——, brain & skull.—**0**, Wiman, C., 2 ; **1**, Watson, D. M. S., 2.

——, British Museum (N.H.).—**1**, Woodward, A. S., 4 ; **2**, British Museum (N. H.), 3.

——, dentition.—**0**, Stromer, E., 4 ; Woodward, A. S., 3 ; **1**, Alessandri, G. de ; Stefano, G. de, 6.

——, Egypt.—**0**, Stromer, E., 2.

——. *See also* Otoliths.

Pisolites.—**0**, Issel, A. *See also* Chamosite-hæmatite-pisolite.

Pisolitic limestone. *See* Limestones.

—— limonite. *See* 'Bohnerz.'

Pitch. *See* Asphaltum *&* Glance pitch.

Pitchblende. *See* Uraninite.

Pitchstone, Portuguese E. Africa.—**1**, Young, R. B.

——, Saxony.—**1**, Beck, R.

——, Transylvania.—**0**, Szentpétery, S. v., 1, 2.

Pitet (Liége). — **1**, Fourmarier, P., 10.

Pithecanthropus-beds.—**2**, Hilber, V., 3.

Pithecistes.—**1**, Thorpe, M. R., 2.

Pitts (Ga.).—**2**, McCallie, S. W.

Placerias.—**2**, Broili, F., 5.

Placers.—**2**, Berg, G., 10.

——, gold.—**1**, Wittich, E., 3.

——, ——, Alaska.—**0**, Harrington, G. L., 1, 3, 4 ; Maddren, A. G., 1, 3 ; Mertie, J. B., *fil*, 1, 5 ; **1**, Overbeck, R. M., 2.

——, ——, British Columbia. — **2**, Johnston, W. A., 5.

——, mercury, Mexico.—**1**, Wittich, E., 2.

——, platinum, Alaska.—**0**, Harrington, G. L., 3, 4 ; Mertie, J. B., *fil*, 5.

——, ——, Ural Mts.—**1**, Krusch, P., 4.

Placochelys.—**1**, Broili, F., 2.

Placodontia.—**1**, Broili, F., 2 ; **2**, Drevermann, F., 2.
Placodus.—**2**, Drevermann, F., 2.
Plagiaplite, Dobrogea.—**2**, Rotman, D., 2.
Plagioclase.—**0**, Lacroix, A. ; **1**, Spangenberg, K., 2 ; **2**, Cathrein, A. ; Gysin, M. ; Rinne, F., 3 ; Wherry, E. T., 2 ; Zambonini, F., 3.
——, twinning.—**1**, Aloisi, P. ; **2**, Franke, —.
—— -porphyrite. *See* Porphyrite.
Plagiostoma.—**2**, Teppner, W.
Plains, Europe (Central).—**1**, Wunderlich, E.
——, United States (S.E.).—**1**, Cleland, H. F., 2.
——, coastal, Scandinavia.—**0**, Ahlmann, H. W., 2 ; Hœgbom, A. G., 3.
Plainview (Tex.).—**0**, Merrill, G. P., 2.
Plan d'Aups (Var).—**0**, Lutaud, L.
Plancheite.—**1**, Henglein, M. ; **2**, Buttgenbach, H. ; Schœp, A., 3.
Plane-table, mapping &. — **0**, Bateman, A. M. ; Palmer, H. S., 2.
Planerite.—**1**, Leitmeier, H., 2.
Planetesimals, earth &.—**0**, Daly, R. A., 7 ; **1**, Chamberlin, T. C., 1, 4.
Planorbis.—**1**, Geyer, D. ; **2**, Wenz, W., 4.
Plant-zones, Coal Measures.—**1**, Bertrand, P., 3.
Plantæ.—**0**, Bower, F. O. ; Gothan, W. ; Johnson, T. ; Sernander, R. ; **1**, Berckhemer, F. ; **2**, Beck, R., 2 ; Kræusel, R. ; Scott. D. H.
——, Calcari Grigi.—**2**, Grandori, L.
——, Carboniferous.—**0**, Davies, D., 1, 2 ; Gothan, W., 2 ; Kessler, P. ; **1**, Carpentier, A., 1, 4, 5, 8 ; Gothan, W., 2 ; Hœrich, O., 2 ; Picquenard, C., 1, 2 ; Regè, R., 2 ; **2**, Beck, R., 4 ; Berry, E. W., 2, 7 ; Kidston, R. ; Petrascheck, W., 3 ; Round, E. M. ; Scott, D. H., 3 ; Seward, A. C., 3.
——, Coal Measures.—**0**, Bertrand, P. ; Bolton, E. ; Picquenard, C. A., 2 ; **1**, Arber, E. A. N. ; Bertrand, P., 1–3 ; Davies, D., 1, 2 ; Gibson, W. ; Hœrich, O. ; Walkom, A. B., 3 ; **2**, Arber, E. A. N. ; Bertrand, P. ; Davies, D. ; Mathieu, F. F. ; Picquenard, C., 2 ; Sinnatt, F. S.
——, Cretaceous.—**0**, Arber, E. A. N. ; Berry, E. W., 2, 8, 10, 12 ; Chaney, R. W. ; Clark, W. B., 2 ; Knowlton, F. H., 2, 3 ; Lee, W. T., 4 ; Newton, R. B. ; **1**, Berry, E. W., 3, 4 ; Carpentier, A., 6, 7 ; Edwards, W. N. ; Jeffrey, E. C. ; Knowlton, F. H. ; Stevens, N. E. ; **2**, Berry, E. W., 16, 17 ; Carpentier, A. ; Fraipont, C. ; Jeffrey, E. C., 2 ; Schlagintweit, O. ; Wieland, G. R.
Plantæ, Culm.—**1**, Carpentier, A., 3 ; Hœrich, O., 3 ; Hueffner, E. ; Oberste-Brink, K. ; Weigelt, J.
——, Devonian.—**0**, Don, A. W. R. ; Holtedahl, O., 17 ; **1**, Arber, E. A. N., 2 ; Carpentier, A., 3 ; Edwards, W. N., 2 ; Fraipont, C. ; Hœrich, O., 3 ; Lang, W. H. ; Lieber, H. ; Pohlig, H. ; **2**, Gilkinet, A. ; Lang, W. H. ; Nathorst, A. G. ; Scott, D. H., 3.
——, Eocene.—**0**, Berry, E. W., 1, 3 ; Kindelan, V. ; Lee, W. T., 4 ; Vaughan, T. W., 5 ; **1**, Dollfus, G. F., 14, 15 ; Reid, C. ; Stevens, N. E. ; **2**, Berry, E. W., 11, 18 ; Fabiani, R., 8 ; Fritel, P. H., 2 ; Knowlton, F. H.
——, *Glossopteris*-flora. — **1**, Lundquist, G.
——, Gondwana system.—**0**, Seward, A. C., 2 ; **1**, Thomas, H. Hamshaw;
——, Jurassic.—**0**, Arber, E. A. N. . **1**, Erdtman, G. ; Horn, M. ; Krasser, F., 2 ; Musper, F. ; Walkom, A. B., 2 ; **2**, Grandori, L. ; Krasser, F. ; Seward, A. C., 6 ; Thomas, H. Hamshaw.
——, Karroo system.—**2**, Seward, A. C.
——, Lias.—**0**, Antevs, E.
——, Lough Neagh beds.—**2**, Johnson, T., 1–3.
——, Mesozoic.—**0**, Grandori, L. ; Knowlton. F. H. ; Sahni, B. ; **1**, Halle, T. G., 2 ; **2**, Berry, E. W., 3 ; Halle, T. G. ; Yabe, H., 2.
——, Miocene.—**0**, Berry, E. W., 6 ; Groves, J. ; Vaughan, T. W., 5 ; **1**, Chaney, R. W. ; Lingelsheim, A. ; **2**, Berry, E. W., 4 ; Chaney, R. W. ; Cockerell, T. D. A., 4 ; Fritel, P. H., 2 ; Gilkinet, A., 2.
——, Neogene. — **0**, Berry, E. W., 5.
——, Old Red Sandstone.—**0**, Kidston, R. ; **2**, Kidston, R., 2.
——, Oligocene.—**0**, Vaughan, T. W., 5 ; **1**, Dollfus, G. F., 14, 15 ; **2**, Chandler, M. E. J., 1, 2 ; Dollfus, G. F., 6 ; Fabiani, R., 8.
——, Palæogene. — **2**, Engelhardt, H.
——, Palæozoic.—**0**, Colani, M., 3 ; Zalessky, M. D., 2 ; **1**, Yabe, H. ; **2**, Seward, A. C., 4.
——, Permian.—**0**, Carpentier, A. ; Fritel, P. H. ; **2**, Petrascheck, W., 3.
——, Permo-Carboniferous.—**0**, Balsillie, D., 4 ; **1**, Leslie, T. N. ; Walkom, A. B. ; **2**, Kurtz, F. ; Leslie, T. N.
——, Pleistocene.—**0**, Chandler, M. E. J. ; Fritel, P. H., 2 ; **1**, Chandler, M. E. J. ; Stoller, J., 7 : **2**, Brockmann-Jerosch, H. ; Kræusel, R., 2 ; Lilpop, J.

Plantæ, Pliocene.—**0**, Berry, E. W., 4 ; Depape, G. ; Dubois, E. ; Matson, G. C., 2 ; Reid, E. M., 1, 2 ; Trechmann, C. T. ; **1**, Reid, E. M. ; **2**, Berry, E. W., 5, 6 ; Depape, G. ; Dickerson, R. E., 3 ; Fritel, P. H., 2 ; Palibin, J. W. ; Reid, E. M., 2 ; Singewald, J. T., *fil.*
——, Quaternary. — **0**, Ailio, J. ; Malmstrœm, C. ; Œyen, P. A., 1, 2 ; Sundelin, A. ; **1**, Fritel, P. H. ; Jessen, K. ; Rytz, W. ; **2**, Fritel, P. H. ; Negri, G.
——, Rhætic.—**0**, Arber, E. A. N. ; **1**, Erdtman, G. ; Steinmann, G. ; **2**, Johansson, N.
——, Silurian.—**1**, Halle, T. G.
——, Tertiary.—**0**, Berry, E. W., 9 ; Florin, R. ; Kerner, F. v., 7 ; Knowlton, F. H. ; Sahni, B. ; Wall, A. ; Winchester, D. E. ; **1**, Chapman, F., 5 ; Kræusel, R., 1, 3 ; Walcott, R. H. ; **2**, Berry, E. W., 13–15 ; Colani, M., 2 ; Krishtofovich, A. N., 2, 4.
——, Trias.—**1**, Krasser, F. ; Seward, A. C., 3 ; **2**, Frentzen, K., 1, 3 ; Petrascheck, W., 3.
——, Wealden.—**1**, Carpentier, A., 6, 7.
——, Australia.—**2**, British Association Committee, 4.
——, bibliography & nomenclature. —**1**, Nagel, K. ; **2**, Jongmans, W. ; Nagalhard, K.
——, British Museum (N.H.).—**1**, Edwards, W. N., 3.
——, classification.—**0**, Grandori, L., 2 ; **1**, Wieland, G. R. ; **2**, Zalessky, M. D., 2.
——, coal &.—**1**, Sinnatt, F. S. ; Weithofer, K. A.
——, Europe (Central).—**1**, Lingelsheim, A. ; Tuzson, J.
——, evolution.—**0**, Berry, E. W., 7 ; **1**, Berry, E. W. ; Scott, D. H., 2 ; **2**, Bugnon, P. ; Chandler, M. E. J., 4 ; Scott, D. H., 2.
——, former climates &.—**0**, Knowlton, F. H., 4, 5 ; **2**, Knowlton, F. H., 2 ; Mohr, E.
——, geographical distribution.—**0**, Berry, E. W. ; Guppy, H. B. ; Wall, A. ; **2**, Seward, A. C., 5.
——, Lusitanian province.—**1**, Boulger, G. S.
——, N. America.—**0**, Knowlton, F. H.
——, petrified.—**0**, Stopes, M. C.
——, S. America.—**0**, Berry, E. W., 11 ; **2**, Kurtz, F.
——, structure.—**1**, Florin, R., 1, 2 ; **2**, Zalessky, M. D., 3.
——, in tufa.—**2**, Kurck, C. ; Œyen, P. A., 2.
——. *See also* Calcisphæræ, Diatomaceæ, *&c.*
Plassen (Upper Austria).—**0**, Spengler, E., 3.
Plassen group, Salzkammergut.—**0**, Spengler, E.
Plateau Central (France).—**2**, Delafond, F.
Plateau gravels. *See* Gravels.
Plateaux.—**0**, Stille, H., 2.
——, S. France. — **0**, Martonne, E. de.
——, Utah.—**1**, Keyes, C. R., 2.
Platforms, coastal, Scandinavia.—**0**, Ahlmann, H. W., 2 ; Hœgbom, A. G., 3.
——, ——, Wellington (N.Z.). — **2**, Adkin, G. L. ; Cotton, C. A.
——, erosion, Romania.—**1** & **2**, Martonne, E. de.
——, fluvial.—**1**, Cvijić, J., 1–3.
Plati (Calabria).—**1**, Stefano, G. de, 2.
Platinum.—**2**, Duparc, L., 3 ; Shaw, G. R.
——, Alaska.—**0**, Chapin, T., 6 ; Harrington, G. L., 3, 4 ; Mertie, J. B., *fil*, 5.
——, Alberta.—**0**, Uglow, W. L., 5.
——, British Columbia.—**0**, Ferrier, W. F., 3 ; Mackenzie, G. C., 3 ; Thomlinson, W. ; Uglow, W. L., 4.
——, Canada.—**0**, Canada, 2.
——, Cornwall.—**1**, McPherson, G.
——, Russia.—**0**, Duparc, L., 3 ; **1**, Krusch, P., 4.
——, Spain.—**0**, Orueta, D. de.
——, bibliography.—**0**, Howe, J. L.
——, world's production & resources. —**0**, Duparc, L., 5 ; United States, 4–6, 8, 9 ; **1**, Kunz, G. F. ; **2**, Great Britain, 13 ; Kunz, G. F. ; United States, 10.
Platten See. *See* Balaton, L.
Platygonus.—**2**, Gidley, J. W. ; Merriam, J. C.
Platyhexacrinus.—**2**, Schmidt, W. E.
Platyschisma.—**2**, Mitchell, J.
Platystrophia.—**0**, McEwan, E. D., 2 ; **2**, Dietrich, W. O., 8.
Platyura.—**2**, Edwards, F. W.
Plawutsch (Styria).—**2**, Hilber, V., 2.
Plazolite.—**1**, Foshag, W. F.
Pleistocene.—**0**, Daly, R. A., 5 ; Gagel, C., 8 ; Given, J. C. M., 2 ; Grabau, A. W., 7 ; **1**, Daly, R. A.
——, Austria.—**0**, Petrbok, J. ; **1**, Lepsius, R. ; Mueller, J.
——, Baden.—**2**, Lais, R. ; Wilser, J. L.
——, Bavaria.—**1**, Mueller, J.
——, Belgium.—**1**, Lorié, J. ; **2**, Cornet, J., 3.
——, Bolivia.—**0**, Berry, E. W., 4 ; **2**, Boule, M. ; Singewald, J. T., *fil.*
——, Brandenburg.—**0**, Keilhack, K., 5 ; **1**, Clausnitzer, —, 2 ; Gagel, C., 2 ; Kaunhowen, F., 6 ; Keilhack, K., 3 ; **2**, Keilhack, K., 3.
——, Bremen area.—**2**, Wilckens, O., 4.
——, British Columbia.—**1** & **2**, Johnston, W. A., 3.

Pleistocene, Brunswick.—**1**, Harbort, E., 2–4.
——, Cambridge area.—**0**, Chandler, M. E. J. ; Marr, J. E. ; **1**, Chandler, M. E. J.
——, Caribbean area.—**0**, Vaughan, T. W., 5.
——, Czechoslovakia.—**0**, Gœtzinger, G. ; Vortisch, W. ; Želízko, J. V. ; **2**, Kretschmer, F., 5 ; Seemann, F. ; Vitásek, F. ; Želízko, J. V., 2.
——, Denmark.—**2**, Nordmann, V., 2.
——, E. Anglia.—**2**, Osborn, H. F., 7.
——, E. Indies.—**1**, Molengraaff, G. A. F.
——, E. Prussia.—**0**, Jentzsch, A., 3 ; Krause, P. G., 2 ; **1**, Hess von Wichdorff, H., 4 ; Jentzsch, A., 4 ; Kaunhowen, F., 2–5 ; Klautzsch, A., 1, 3 ; Menzel, H., 2 ; Meyer, E., 2, 5 ; Tornau, F., 1, 2.
——, England.—**0**, Lamplugh, G. W., 3.
——, Europe.—**0**, Dawkins, W. B. ; Odén. S., 3.
——, France.—**0**, Leidhold, C. ; **1**, Kilian, W., 8 ; Lorié, J.
——, Germany.—**0**, Brueckner, E., 5 ; Deecke, W., 4 ; Gagel, C., 3, 6 ; Keilhack, K., 8 ; Linstow, O. v. ; **1**, Gagel, C., 9 ; Keilhack, K., 5.
——, Great Britain.—**0**, Dawkins, W. B.
——, Hamburg area.—**1**, Wolff, W., 4.
——, Hanover.—**1**, Grupe, O., 3, 5 ; Harbort, E. ; Stoller, J., 1, 2, 4, 5 ; Wolff, W., 3.
——, Hesse.—**0**, Schottler, W., 3, 5, 6 ; **1**, Ahlburg, J., 2 ; Blanckenhorn, M., 2, 4, 6 ; Haupt, O. ; **2**, Harrassowitz, H. L. F., 3 ; Weiler, W.
——, Hohenzollern.—**1**, Mueller, H., 2.
——, Holland.—**0**, Dubois, E. ; **1**, Keilhack, K., 4 ; Kurtz, E., 2.
——, Hungary.—**0**, Horusitzky, H. ; **1**, Kormos, T., 7.
——, India (N.).—**0**, Pilgrim, G. E.
——, Italy.—**0**, Franchi, S. ; **1**, Mariani, E., 7, 13 ; **2**, Battaglia, R. ; Wepfer, E., 1, 2.
——, Labrador.—**1**, Coleman, A. P., 3.
——, Lincolnshire.—**2**, Sheppard, T., 10.
——, Lübeck.—**1**, Schlunck, J., 3.
——, Mainz Basin.—**0**, Geib, K. ; Wenz, W.
——, Manitoba.—**0**, Johnston, W. A.
——, Mexico.—**1**, Dall, W. H., 1, 2.
——, Nassau.—**1**, Ahlburg, J., 2 ; Lauterbach, W.
——, Neckar R. area.—**2**, Freudenberg, W.
——, Oldenburg.—**0**, Weingærtner, R. M.
——, Palestine.—**2**, Range, P., 2.
Pleistocene, Panama.—**0**, Vaughan, T. W., 5.
——, Poland.—**0**, Gagel, C., 9 ; Jentzsch, A., 3 ; **1**, Assmann, P., 3 ; Dammer, B. ; Hermann, — ; Jentzsch, A., 2, 4 ; Korn, J., 1, 3 ; Schlunck, J., 4 ; Tietze, O., 10 ; **2**, Krukowski, S. ; Lilpop, J. ; Limanovski, M. ; Rettschlag, W.
——, Pomerania.—**0**, Hess von Wichdorff, H., 2 ; Jækel, O., 2, 3 ; **1**, Hess von Wichdorff, H., 2 ; Jækel, O. ; Klautzsch, A., 4 ; Linstow, O. v., 9 ; Menzel, H.
——, Prince Edward I.—**0**, Coleman, A. P., 2.
——, Prussia.—**1**, Barsch, O. ; Grupe, O., 1, 6 ; Korn, J., 3–5 ; Schrœder, H., 7.
——, Quebec.—**0**, Coleman, A. P., 2 ; **1**, Goldring, W.
——, Rheinland.—**0**, Keilhack, K., 4 ; **1**, Kurtz, E., 1, 2 ; Quaas, A., 6 ; **2**, Knuth, H.
——, Rhine Valley (Lower). — **0**, Gagel, C., 7 ; Quaas, A. ; **1**, Jungbluth, F. A. ; Krause, P. G., 3 ; Zimmermann, E., II, 10.
——, Saxony.—**0**, Werth, E.
——, Schleswig-Holstein.—**0**, Wolff, W., 2 ; **1**, Schlunck, J., 2, 5 ; **2**, Reitz, H., 2.
——, Sierra Leone.—**0**, Dixey, F., 3.
——, Silesia.—**0**, Gœtzinger, G. ; **1**, Behr, J. ; Finckh, L., 2 ; Tietze, O., 2, 9 ; Zimmermann, E., I, 2, 4.
——, Somerset.—**0** & **1**, Greenly, E., 2 ; **2**, Greenly, E.
——, S. Australia.—**0**, Howchin, W., 7 ; **1**, Chapman, F., 3.
——, Swabia.—**0**, Drevermann, F., 5.
——, Switzerland.—**0**, Frei, R. ; **1**, Gerber, E., 6 ; **2**, Brockmann-Jerosch, H. ; Jeannet, A. ; Keller, W. T. ; Studer, T.
——, Tanganyika.—**2**, Reck, H., 7.
——, Thuringia.—**0**, Jentzsch, A., 5 ; Werth, E., 3 ; **1**, Stoller, J., 7.
——, Transylvania.—**1**, Halavàts, G. v.
——, United States.—**0**, Baker, F. C. ; Fairchild, H. L., 2 ; Miller, W. J. 1, 2 ; Stoller, J. H., 2 ; Todd, J. E. ; Vaughan, T. W., 3 ; **1**, Bascom, F., 2 ; Cleland, H. F., 2 ; Gidley, J. W. ; Goldring, W. ; Kay, G. F. ; Leighton, M. M. ; Leverett, F. ; **2**, Baker, F. C. ; Kay, G. F., 3 ; Kemp, J. F. ; MacClintock, P.
——, Uruguay.—**2**, Walther, K.
——, Victoria.—**0**, Chapman, F., 3.
——, Wales.—**0**, Lamplugh, G. W., 3.
——, Werre R. area.—**1**, Stoller, J., 6.
——, Westphalia.—**0**, Wegner, T. ; **2**, Knuth, H.

Pleistocene, Worcestershire. — **1**, Anon., 2.
——, boulders in, Germany. — **1**, Ernst, W. ; Gagel, C., 6 ; Korn, J., 7 ; **2**, Oostingh, C. H.
——, lakes, Great Basin.—**2**, Meinzer, O. E.
——. *See also* Eem series, Interglacial deposits, *&c.*
Pleochroic haloes. *See* Haloes.
Plesiocyprinella.—**0**, Holdhaus, K.
Plesiosauria.—**2**, Andrews, C. W., 2, 3 ; Huene, F. v., 7.
Pleskau. *See* Pskov.
Pleuroceratidæ.—**2**, Douvillé, H., 7.
Pleurodonte.—**0**, Bartsch, P.
Pleuromya.—**1**, Bender, G.
Pleurophorus.—**1**, Bœhm, J.
Pleurotomidæ.—**2**, Vredenburg, E. W.
Plexography, Staffordshire.—**1** & **2**, King, W. W., 2.
Plinthiotheca.—**1**, Carpentier, A., 5.
Pliocene, Africa (N.W.).—**0**, Dalloni, M., 2 ; Gentil, L., 2 ; **1**, Blayac, J. ; Brives, A. ; Gentil, L. ; Savornin, J. ; **2**, Brives, A., 3 ; Gentil, L. ; Navarro, L. F.
——, Albania.—**2**, Nowak, E., 6.
——, Argentina.—**0**, Frenguelli, J., 4 ; Rovereto, G. ; **1**, Frenguelli, J., 2 ; **2**, Ameghino, F. ; Frenguelli, G., 4.
——, Asia Minor.—**0**, Oppenheim, P., 8.
——, Austria.—**1**, Hassinger, H. ; **2**, Richarz, P. S. ; Winkler, A., 2.
——, Belgium.—**0**, Fourmarier, P., 4 ; **1**, Briquet, A., 2 ; Harmer, F. W. ; Lorié, J. ; Stamp, L. D., 2 ; **2**, Halet, F., 2, 3.
——, Bolivia.—**0**, Berry, E. W., 4 ; **2**, Berry, E. W., 5 ; Singewald, J. T., *fil.*
——, Corsica. — **2**, Hollande, D. ; Maury, E.
——, Cuba.—**0**, Roig, M. S.
——, Durham.—**0**, Trechmann, C. T.
——, Dutch E. Indies.—**1**, Felix, J., 3 ; **2**, Fischer, P. J. ; Hartmann, E. ; Mannhardt, F. G. ; Ziegler, K. G. J.
——, E. Anglia.—**1**, Harmer, F. W. ; **2**, Osborn, H. F., 7.
——, Egypt.—**2**, Moon, F. W.
——, England (S.W.).—**1**, Milner, H. B. ; **2**, Milner, H. B., 2.
——, France.—**0**, Dollfus, G. F., 22 ; **1**, Briquet, A., 2 ; Degrange-Touzin, A. ; Grahmann, R. ; Levy, F. ; Lorié, J. ; Marty, P., 2 ; **2**, Depape, G. ; Gennevaux, M. ; Kerforne, F. J., 4 ; Mayet, L.
——, Germany.—**0**, Sauer, A., 5 ; Schottler, W. ; **1**, Blanckenhorn, M., 3, 5 ; Dannenberg, A. ; Fischer, K. ; Jungbluth, F. A. ; Krause, P. G., 3 ; Levy, F. ; Oppenheim, P. ; Quaas, A., 6 ; **2**, Matthias, W. ; Wenz, W., 5.
Pliocene, Greece.—**2**, Oppenheim, P., 3.
——, Hampshire basin.—**2**, Hooley, R. W.
——, Hertfordshire.—**0**, Barrow, G. ; Gilbert, C. J.
——, Holland.—**0**, Dubois, E.
——, Hungary.—**0**, Horusitzky, H. ; **1**, Kormos, T., 7 ; Lóczy, L. v., *fil.*
——, Italy.—**0**, Meli, R., 4 ; Segré, C. ; Zaccagna, D. ; **1**, Brest, E. ; Chelussi, I. ; Papp, K. v., 2 ; Portis, A. ; Zuffardi, P. ; **2**, Fabiani, R., 8 ; Wepfer, E., 4.
——, Japan.—**0**, Yokoyama, M. ; **2**, Iki, T. ; Yokoyama, M.
——, Jura Mts.—**1**, Schardt, H.
——, Kent.—**0**, Leach, A. L., 2.
——, London Basin.—**0**, Barrow, G. ; **2**, Woodward, H. B.
——, Mexico.—**1**, Dall, W. H., 1, 2.
——, New South Wales.—**1**, Walcott, R. H.
——, New Zealand.—**0**, Speight, R., 2 ; **2**, Park, J., 2.
——, Norfolk.—**2**, Boswell, P. G. H., 4 ; Moir, J. R.
——, Romania.—**2**, Athanasiu, S. C., 6 ; Ionescu-Argetoaia, I., 1, 3, 4, 7, 9 ; Popescu-Voiteşti, I., 6 ; Preda, D. M., 5.
——, Slovakia.—**1**, Kormos, T., 5 ; Lóczy, L. v., *fil*, 2.
——, Somerset.—**1**, Greenly, E.
——, Spain (E.).—**2**, Gignoux, M., 2.
——, Suffolk.—**2**, Boswell, P. G. H., 4, 10, 11.
——, Surrey.—**1**, Young, G. W.
——, Switzerland.—**1**, Buxtorf, A., 2 ; **2**, Keller, W. T.
——, Tanganyika.—**1**, Branca, W.
——, Transcaucasia.—**2**, Palibin, J. W.
——, United States.—**0**, Matson, G. C., 2 ; Shaw, E. W., 2 ; **1**, Bascom, F., 2 ; Howe, H. V. ; Stock, C. ; **2**, Howe, H. V.
——, Uruguay.—**2**, Walther, K.
——, Victoria.—**1**, Walcott, R. H.
——. *See also* Crag, Diestian, *&c.*
Pliocyon.—**1**, Thorpe, M. R., 3 ; **2**, Thorpe, M. R.
Plogoff-Pont-Croix (Finistère). — **1**, Picquenard, C.
Plumasite.—**2**, Gordon, S. G.
Plumulites.—**1**, Withers, T. H.
Pneumatolysis.—**0**, Dœrpinghaus, W. T. ; **1**, Ramdohr, P. ; **2**, Beger, P. J., 2 ; Goldschmidt, V. M. ; Hugi, E.
Pobethen (E. Prussia).—**1**, Tornau, F.
Pocala cave (Istria).—**2**, Battaglia, R.
Pöchite.—**2**, Katzer, F., 4.
Podejuch (Pomerania).—**1**, Linstow, O. v., 7.
Podocarpoxylon.—**2**, Barre, H. du L. de la.

Podolia (Galicia-Ukraine).—**1**, Rudnyćkyj, S. ; **2**, Davis, W. M.
Point Cranstal (I. of Man).—**2**, Whitehead, W. A.
Pojo (Finland).—**1**, Frosterus, B.
Poland.—**0**, Anon., 36 ; Kriger, — ; **2**, Kaunhowen, F. ; Lencewicz, S. ; Limanovski, M., 2 ; Morozewicz, J., 2.
——, bibliography.—**2**, Danysz-Fleszarowa, R.
——, geological survey.—**1**, Morozewicz, I., 1, 3, 4.
——, glaciation.—**1**, Wunderlich, E. ; **2**, Samsonowicz, J. ; Wołłosowicz, S.
——, stratigraphy.—**0**, Jentzsch, A., 6, 7 ; **1**, Linstow, O. v. ; **2**, Lilpop, J. ; Schindewolf, O. H.
—— (N.W.).—**0**, Jentzsch, A., 3 ; **1**, Jentzsch, A., 4, 5 ; Korn, J., 3.
—— (S.).—**0**, Petrascheck, W., 6, 7.
—— (S.W.).—**1**, Kuzniar, W.
—— (W.).—**1**, Linstow, O. v., 10; Milthers, V.
——. *See also* Bydgoszcz, Carpathians, Galicia, *&c.*
Polarization.—**1**, Keeley, F. J. ; Leiss, C. ; **2**, Bauer, M. ; Cheshire, F. ; Tutton, A. E. H.
—— - microscope. *See* Microscope.
—— -prisms.—**2**, Ehringhaus, A., 5.
Polarized light.—**1**, Liebisch, T., 4, 5 ; Wright, F. E., 2 ; **2**, Berek, M. ; Gall, O.
Poles, variation of.—**2**, Kœppen, W. ; Nœlke, F. ; Richarz, P. S., 3.
Poligné (Ille-et-Vilaine).—**0**, Bézier, T.
'Poljes.'—**2**, Wray, D. A.
Pollen.—**2**, Holmsen, G., 2 ; Lundqvist, G.
——, Denmark.—**1**, Jessen, K.
——, Sweden.—**0**, Sundelin, A. ; **1**, Erdtman, G., 2 ; **2**, Halden, B. E., 2 ; Sundelin, U., 2.
Pollicipes.—**0**, Thuma, F.
Pollucite.—**1**, Grill, E., 2.
Polybasite.—**2**, Hurst, M. E.
Polymolybdates.—**1**, Posternak, S.
Polymorphina.—**1**, Allix, —.
Polymorphism, crystals.—**2**, Brauns, R., 12 ; Muegge, O., 13.
Polyzoa. *See* Bryozoa.
Polzenite.—**2**, Scheumann, K. H.
Pomarangina.—**2**, Diener, C. ; Krumbeck, L., 2.
Pomerania.—**0**, Jækel, O., 2, 3 ; **1**, Keilhack, K. ; Menzel, H., 3 ; Otto, T. ; **2**, Kalb, G., 2 ; Sonntag, P.
——, Mesozoic.—**1**, Bœhm, J., 8, 12 ; Kegel, W. ; Schulte, L., 1, 2 ; **2**, Keilhack, K.
——, Quaternary.—**1**, Hess von Wichdorff, H., 2 ; Jækel, O. ; Linstow, O. v., 3, 7, 9 ; Menzel, H.
Pomerania, stratigraphy.—**0**, Gagel, C., 2 ; Hess von Wichdorff, H., 2 ; **1**, Keilhack, K., 5 ; Klautzsch, A., 4 ; Kranz, W. ; Linstow, O. v., 8.
Ponarth (E. Prussia).—**1**, Kaunhowen, F., 3.
Ponce (Porto Rico).—**2**, Mitchell, G. J.
Ponding, glaciation.—**0**, Williams, E. H., *fil.*
Pondoland (Cape Prov.).—**1**, Du Toit, A. L.
Pont-de-Gail (Cantal).—**1**, Marty, P., 2.
Pontian, Hungary.—**1**, Zalányi, B., 4.
——, Wallachia.—**2**, Ionescu-Argetoaia, I., 7.
Pontine Is. (Campania).—**2**, Fiore, O. de.
Pontine Mts. (Lazio).—**0**, Meli, R., 5 [6].
Popocatepetl (Mexico).—**1**, Waitz, P., 4, 5 ; **2**, Friedlænder, I. ; Lopez, E.
Poposaurus.—**2**, Nopcsa, F., 8.
Porcelain stone, Japan.—**2**, Ihara, K., 3.
Porcupine (Alaska).—**0**, Eakin, H. M., 5.
Porcupine (Ont.).—**0**, Bell, J. M., 2.
Porifera.—**0**, Annandale, N. ; Fritzsche, H. ; **2**, Chapman, F., 5 ; Reis, O. M., 3.
——, Cambrian.—**0**, Rothpletz, A. ; Walcott, C. D. ; **2**, Gordon, W. T.
——, Carboniferous.—**0**, Holtedahl, O., 4.
——, Cretaceous.—**0**, Davey, E. C. ; Dettmer, F.
——, Devonian.—**0**, Clarke, J. M. ; **1**, Clarke, J. M., 4.
——, Jurassic.—**0**, Richardson, L., 2 ; **1**, Oppliger, F. ; **2**, Oppliger, F., 1, 2.
——, Lias.—**1**, Tilmann, N., 2.
——, Ordovician.—**0**, Bassler, R. S. ; Butler, B. S. ; Holtedahl, O., 13 ; Nettelroth, H. ; Shaw, E. W., 5 ; **1**, Bekker, H. ; **2**, Holtedahl, O., 3 ; Ruedemann, R., 2.
——, Trias.—**1**, Vinassa de Regny, P.
——. *See also* Silicispongiæ *&* Spongiæ.
Porirua Harbour area (N.Z.).—**2**, Adkin, G. L.
Porosity of rocks.—**1**, Kendall, P. F., 2 ; **2**, Kendall, P. F., 4.
Porphyrite, Alsace.—**0**, Buecking, H.
——, Borneo (Dutch).—**1**, Krol, L. H.
——, Brabant.—**1**, Hankar-Urban, A. ; **2**, Stamp, L. D., 3.
——, Croatia.—**1**, Koch, F.
——, Egypt.—**2**, Schuermann, H. M. E., 2.
——, French Indo-China.—**2**, Jacob, C., 1, 5.
——, Germany.—**1**, Haase, E. ; Beger, P. J., 3 ; Schœnfeld, G.

Porphyrite, Venetia.—**1**, Maddalena, L., 4 ; Pretto, O. de.

——, plagioclase-, Carnarvonshire.—**2**, Williams, H.

——, quartz-, Hainault.—**1**, Wen-Hao, W.

——. *See also* Diabase-porphyrite & Diorite-porphyrite

Porphyritic basalt. *See* Basalt.

—— tuffs. *See* Tuffs.

Porphyroid, Leicestershire.—**1**, Richardson, W. A., 3.

—— -tuffs. *See* Tuffs.

Porphyry.—**1**, Holmquist, P. J., 4.

——, Arizona.—**0**, Rice, M.

——, Dobrogea.—**2**, Cantuniari, S., 3.

——, Egypt.—**2**, Schuermann, H. M. E., 2.

——, Germany.—**0**, Lehner, A. ; **1**, Bœhne, E. ; Haase, E. ; Zimmermann, E., I, 2 ; **2**, Freyberg, B. v., 2 ; Meyer, H. L. F., 3 ; Stauffacher, J., 2.

——, Styria.—**2**, Stiny, J., 4.

——, Sweden.—**2**, Geijer, P., 2.

——, Tasmania.—**2**, Weston-Dunn, J. G.

——, labrador-, Alsace.—**0**, Buecking, H.

——, nephelite-, New Jersey.—**2**, Aurousseau, M.

——, quartz-, Cumberland. — **0**, Holmes, A., 8.

——, ——, Haute-Savoie.—**0**, Oulianov, N., 4.

——, ——, Romania. — **0**, Cădere, D.

——, ——, Thuringia. — **1**, Platt, H. ; **2**, Ullrich, E.

——, rhomb-, Sweden.—**0**, Quensel, P. ; Sundius, N., 2.

——, spherulite-, Basel.—**2**, Preiswerk, H., 2.

——. *See also* Granite-porphyry & Syenite-porphyry.

Porphyry-quartz.—**2**, Drugman, J.

Port Arthur (Ont.).—**1**, Keele, J., 2.

Port Cygnet (Tasmania).—**0**, Skeats, E. W., 7.

Port Fairy (Vict.).—**0**, Ferguson, W. H.

Port Nicholson area (N.Z.).—**2**, Cotton, C. A.

Port-Sainte-Marie (Lot-et-Garonne). —**0**, Labrie, J.

Port Waikato (N.Z.).—**1**, Gilbert, T. M.

Portage formation, New York.—**0**, Chadwick, G. H., 5.

Portland rocks, Wiltshire.—**2**, Chatwin, C. P.

Porto Rico (W. Indies).—**0**, Berkey, C. P., 2 ; Fettke, C. R. ; Hodge, E. T. ; Hubbard, B. ; Maury, C. J.; Reeds, C. A. ; Reid, H. F., 1, 2 ; Semmes, D. R. ; **1**, Vaughan, T. W. ; **2**, Mitchell, G. J.

Porto Santo I. (Madeira).—**1**, Cockerell, T. D. A., 4.

Porto Valtravaglia (Lombardy).—**1**, Mariani, E.

Portugal.—**0**, Pruvost, P. ; Souza, P. de ; **1**, Fleury, E. ; Lepierre, C. ; Pereira de Sousa, F. L. ; **2**, Gómez, J. R.

—— (S.).—**2**, Gagel, C., 4 ; Scotti, H. v.

——. *See also* Algarve.

Portuguese East Africa.—**0**, Holmes, A., 7, 9, 11 ; **1**, Young, R. B. ; **2**, Anthoine, R., 6, 7 ; Mennell, F. P. ; Walls, R. R., 1, 2.

Poschiavo (Graubünden). — **2**, Schmidt, C., 3.

Posen. *See* Poznań.

Posidonia-bed, Württemberg. — **1**, Hauff, B.

Posidoniella.—**2**, Weigelt, J.

Posidonomya.—**2**, Weigelt, J.

—— *alpina*-beds, Anatolia.—**2**, Vadász, E.

Post-Cretaceous, correlation. — **2**, Vaughan, T. W., 4, 6.

Post-Glacial.—**2**, Credner, W.

——-——, Cheshire.—**2**, Travis, W. G.

——-——, Denbighshire.—**0**, Wills, L. J., 1, 2.

——-——, Durham.—**1**, Woolacott, D.

——-——, England.—**0**, Lamplugh, G. W., 3.

——-——, Europe (N.W.). — **1**, Hinch, J. de W.

——-——, Fennoscandia.—**0**, Hœgbom, A. G., 2.

——-——, France.—**1**, Mengel, O., 2 ; Welsch, J., 3.

——-——, Germany.—**1**, Gagel, C., 4 ; Kuźniar, W. ; **2**, Kraus, E.

——-——, Great Britain.—**0**, Lamplugh, G. W.

——-——, Kerry.—**0**, Callaghan, H. R.

——-——, Ladoga L. area.—**0**, Ailio, J.

——-——, Newfoundland. — **1**, Daly, R. A., 3.

——-——, N.-W. Territories.—**2**, Cameron, A. E.

——-——, Northumberland. — **1**, Woolacott, D.

——-——, Nova Scotia.—**1**, Daly, R. A., 3.

——-——, Ontario.—**1**, Hobbs, W. H., 2.

——-——, Poland (S.W.).—**1**, Kuzniar, W.

——-——, Quebec.—**1**, Twenhofel, W. H.

——-——, Scandinavia.—**0**, Moscheles, J.

——-——, Suffolk.—**0**, Moir, J. R., 2 ; **2**, Boswell, P. G. H., 10, 11.

——-——, Switzerland.—**2**, Favre, J.

——-——, United States (N.E.).—**0**, Fairchild, H. L., 1, 10 ; Shimer, H. W. ; Stoller, J. H. ; **1**, Loomis, F. B.

Post-Glacial, Yorkshire.—**1**, Lamplugh, G. W.

Post-Palæozoic, Africa (E.).—**0**, Fourmarier, P., 7.

—— - ——, Eifel.—**0**, Quiring, H.

Pot-holes.—**2**, Richter, R.

—— - ——, Italy.—**0**, Clerici, E., 2; Meli, R., 7; Sabatini, V., 2; **1**, Crema, C., 3.

—— - ——, Liége.—**1**, Ostrowick, I. de R. d'.

—— - ——, Norway.—**2**, Foslie, S.

—— - ——, Sweden.—**2**, Wallerius, I. D., 2.

—— - ——, Thuringia.—**1**, Hess von Wichdorff, H., 3.

Potamogeton.—**1**, Berry, E. W., 3.

Potamotherium.—**2**, Helbing, H.

Potash.—**0**, Homes, A., 12; United States, 6, 8; **1**, Hœfer, H. v., 4; **2**, Goldschmidt, V. M., 17; Rinne, F., 5.

——, Alsace.—**0**, Gale, H. S., 2; Margerie, E. de; Wagner, W.; **1**, Anon., 19; **2**, Dégoutin, M.; Floquet, —; Fourmarier, P., 7.

——, Canada (E.).—**0**, Hayes, A. O.

——, Germany.—**0**, Anon., 37; **1**, Landgræber, W.; Rinne, F.; **2**, Fulda, E., 2; Kling, P.; Lachmann, R., 2; Rózsa, M., 5, 6; Stille, H.

——, Poland.—**0**, Anon., 36; **2**, Voiteşti, I. Popescu.

——, Spain.—**0**, Gale, H. S.; **1** & **2**, Born, A.

——, United States.—**0**, Maynard, T. P.; Phalen, W. C., 2; **1**, Hicks, W. B.; United States, 4, 9; **2**, United States, 11, 13.

——. *See also* Hartsalzkainitite, Salt-deposits, *&c.*

Potassium aluminium sulphate.—**2**, Ramann, E., 2.

—— iodide.—**2**, Johnsen, A., 2.

—— nitrate, Cape Province.—**2**, Webber, H. O'K.

—— ——, China.—**2**, Keiper, —.

—— ——, Peru.—**1**, Mariátegui, G. R.

—— salts, Romania.—**2**, Athanasiu, S. C., 3; Mrazec, L., 7.

Pötrau (Holstein).—**1**, Schlunck, J., 2.

Pottery, early.—**0**, Rutot, A.

——, ——, Argentina. — **1**, Ameghino, F., 9; **2**, Ameghino, F.

——, ——, French Indo-China.—**2**, Mansuy, H., 6, 7.

——, ——, Ladoga L. area.—**0**, Ailio, J.

——, ——, Suffolk.—**0**, Moir, J. R., 2; **1**, Moir, J. R.

——, materials for, Argentina.—**0**, Cuomo, M.

——, ——, Federated Malay States. **0**, Jones, W. R

——, ——, S. Africa.—**1**, Anon., 7.

Pottiga (Thuringia).—**1**, Theobald, H.

Pottsville formation, Ohio.—**2**, Morningstar, H.

Poznań (Poland).—**0**, Jentzsch, A., 6, 7; **1**, Dammer, B.; Hermann, —; Jentzsch, A., 2, 3, 6; Korn, J., 2, 7; Tietze, O., 10.

Pozzolana, Lazio.—**2**, Wepfer, E.

Pozzuoli (Campania).—**2**, Signore, F.

Pradalunga (Lombardy).—**1**, Artini, E.

Prahova (Wallachia).—**2**, Protescu, O., 1, 2, 4–6.

Prasinite, Liguria.—**0**, Curiat, D.

——, Valais.—**1**, Bartholmès, F.

Prata-Porci (Lazio).—**2**, Cumin, G., 2.

Pre-Alps (Switzerland).—**0**, Girardin, P., 2; **1**, Gagnebin, E.; Heim, Arnold, 1, 2; Lugeon, M., 2; Rabowski, F.; **2**, Horwitz, L.

Pre-Cambrian.—**2**, Ruedemann, R., 3.

—— - ——, Argyll.—**2**, Jehu, T. J.

—— - ——, Arizona.—**2**, Reber, L. E., *fil.*

—— - ——, British Columbia.—**1**, Schofield, S. J.; **2**, Shepard, F. P., 3.

—— - ——, Canada.—**0**, Alcock, F. J.; **1**, Quirke, T. T.; Steidtmann, E.; **2**, Miller, W. G.

—— - ——, Channel Is.—**1**, Plymen, G. H., 2, 3; **2**, Plymen, G. H., 2.

—— - ——, Colorado.—**0**, Bastin, E. S.; Finlay, G. I.

—— - ——, Fennoscandia.—**0**, Goldschmidt, V. M., 3; **2**, Geijer, P., 3.

—— - ——, Finland.—**0**, Mækinen, E.; Wilkman, W. W.; **1**, Frosterus, B., 3.

—— - ——, Gloucestershire.—**1**, Gardiner, C. I.

—— - ——, Ille-et-Vilaine.—**0**, Kerforne, F., 5, 8; **2**, Kerforne, F. J., 3.

—— - ——, India.—**0**, Vredenburg, E. W., 2.

—— - ——, Labrador.—**1**, Coleman, A. P., 3.

—— - ——, Manchuria.—**2**, Murakami, H.

—— - ——, Manitoba.—**0**, Alcock, F. J., 2; Bruce, E. L., 1, 2; **1**, Alcock, F. J., 1–3, 8; McCann, W. S.; **2**, Bruce, E. L.; Cooke, H. C., 2.

—— - ——, Michigan.—**1**, Allen, R. C.

—— - ——, Minnesota.—**0**, Broderick, T. M.; Grout, F. F., 2; **2**, Gruner, J. W., 2.

—— - ——, Montana.—**0**, Rothpletz, A.

—— - ——, New Jersey.—**2**, Ries, H.

—— - ——, New Mexico.—**1**, Gruner, J. W.

—— - ——, New York.—**0**, Alling, H. L.; Miller, W. J., 1, 2; **2**, Berkey, C. P.; Kemp, J. F.

Pre-Cambrian, Newfoundland. — **1**, Steidtmann, E.
—— - ——, N. America.—**0**, Steidtmann, E., 2.
—— - ——, Norway.—**1**, Bugge, C.
—— - ——, Ontario.—**0**, Cooke, H. C., 2, 3 ; Rothpletz, A. ; **1**, Burrows, A. G., 2 ; Tanton, T. L. ; Wilson, M. E., 2 ; **2**, Bruce, E. L.; Burrows, A. G. ; Burwash, E. M. ; Collins, W. H. ; Cooke, H. C. ; Quirke, T. T., 1, 2.
—— - ——, Portuguese E. Africa.—**0**, Holmes, A., 11.
—— - ——, Quebec.—**0**, Cooke, H. C., 3 ; Mailhiot, A. ; **1**, Wilson, M. E., 2.
—— - ——, Russia (N.W.).—**1**, Homén, T.
—— - ——, Saskatchewan.—**0**, Bruce, E. L.
—— - ——, S. Australia.—**0**, Howchin, W., 7 ; Tilley, C. E., 3 ; **1**, Tilley, C. E., 1, 2, 4.
—— - ——, S. Dakota.—**1**, Runner, J. J.
—— - ——, Superior L. area.—**2**, Geijer, P., 3.
—— - ——, Sweden (Central).—**1**, Frœdin, G.
—— - ——, United States.—**1**, Bascom, F., 2 ; Steidtman, E.
—— - ——, W. Australia.—**1**, Talbot, H. W. B.
—— - ——, Wisconsin.—**0**, Alden, W. C.
—— - ——, Yukon.—**1**, Cockfield, W. E.
—— - ——. *See also* Algonkian, Dalradian, *&c.*
Precious metals, Ardenne.—**2**, Moressée, G., 3. *See also* Platinum, *&c.*
—— stones. *See* Gem-stones.
Predazzo (Trentino).—**0**, Stiny, J., 4 ; **1**, Stella, A.
Pre-Devonian, Nassau.—**1**, Leppla, A., 6.
—— - ——, Spitsbergen.—**2**, Tyrrell, G. W., 2.
Pre-Glacial, Arran-Carnarvonshire.—**0**, Gregory, J. W., 3.
—— - ——, Fribourg.—**0**, Schardt, H.
—— - ——, Germany.—**0**, Kurtz, — ; **1**, Naumann, E., 12.
—— - ——, Hungary.—**0**, Kormos, T., 2.
—— - ——, Missouri valley. — **1**, Greene, F. C.
—— - ——, Norway.—**1**, Vogt, J. H. L.
Prehistory.—**1**, Childe, A. ; Marriott, R. A., 2.
——, Argentina.—**1**, Ameghino, F., 8, 9, 11 ; Torcelli, A. J.
——, Cape Province.—**2**, Hewitt, J.
——, Europe.—**2**, Burkitt, M. C.
——, Gloucestershire.—**2**, Gray, J. W.
Prehistory, Hampshire basin. — **2**, Hooley, R. W.
——, I. of Man.—**1**, Corkill, W. H.
——, La Plata basin.—**1**, Ameghino, F., 7, 10.
——, New Caledonia.—**2**, Sarasin, F.
——, Pembrokeshire.—**0**, Leach, A. L.
——, Seine-et-Marne.—**1**, Ameghino, F., 15–19.
——, Swabia.—**0**, Drevermann, F., 5.
——, Switzerland.—**2**, Dubois, A. ; Guillarmod, J. J.
——, Uganda.—**1**, Wayland, E. J., 2, 8.
——, Uruguay.—**1**, Ameghino, F., 6.
——, Wiltshire.—**1**, Bradley, A. G.
——, Yorkshire.—**2**, British Association.
——. *See also* Implements, Man, *&c.*
Prehnite.—**2**, Simmersbach, B., 5.
Pre-Moenkopi, Colorado plateau.—**0**, Dake, C. L., 2.
Pre-Permian, Colorado plateau.—**0**, Dake, C. L., 2.
Prescelly. *See* Mynydd Prescelly.
Prescott (Ont.).—**2**, Keele, J., 2.
Pressburg. *See* Bratislava.
Pressure, conglomerate &.—**0**, Butterfield, J. A.
——, earth.—**1**, Moulton, H. G.
——, fissures &.—**0**, Walther, J.
——, indented pebbles &.—**0**, Kumm, A.
——, mountains &.—**0**, Pollack, V. ; Weithofer, K. A.
——, petroleum &.—**2**, Henglein, M.
——, rock-fragments &.—**1**, Lugeon, M., 6.
——, rocks &.—**0**, Joly, J. ; **1**, Willis, B. ; **2**, Johnston, J.
——. *See also* Rock-pressure.
Prestwichia.—**2**, Van Straelen, V., 8.
Pre-Würmian, Switzerland.—**2**, Joukowsky, E., 1, 2.
Primates.—**0**, Given, J. C. M. ; **2**, Carter, J. T.
——, Eocene.—**1**, Gregory, W. K. ; Schlosser, M. ; Teilhard de Chardin, P., 2.
——. *See also* Anthropoidea.
Primero R. basin (Argentina).—**1**, Bodenbender, G.
Prince Edward I. (Canada).—**0**, Coleman, A. P., 2.
Prince George (B.C.).—**1**, Reinecke, L.
Prince William Sound area (Alaska).—**0**, Johnson, B. L., 1–5.
Prinzerolo, Mte. (Emilia).—**2**, Brusoni, A., 2.
Prionodelphis.—**2**, Frenguelli, G.
Prisms. *See* Polarization-prisms.
Proboscidea.—**0**, Dietrich, W. O. ; **1**, Airaghi, C., 12 ; Andrews, C. W., 3 ; Osborn, H. F., 3 ; **2**, Neuville, H. ; Osborn, H. F., 4 ; Schlesinger, G.

Proboscidea, Miocene.—**0**, Wadia, D. N.; **2**, Airaghi, C., 2; Brives, A., 4; Cooper, C. F.; Osborn, H. F., 3; Schlosser, M., 3.

——, Oligocene.—**0**, Osborn, H. F., 7.

——, Pleistocene.—**0**, Fraas, E.; **1**, Airaghi, C., 9; Haughton, S. H.; Kay, G. F.; Lull, R. S., 3; Studer, T.; **2**, Boule, M.; Reck, H., 3.

——, Pliocene.—**0**, Mayet, L.; **1**, Osborn, H. F., 4; Sœrgel, W.; **2**, Athanasiu, S. C., 6; Freudenberg, W., 3; Schlosser, M., 2.

——, Quaternary.—**1**, Mariani, E., 5; Pontier, G.; Raw, F.; **2**, Freudenberg, W., 3; Nordmann, V.; Van Straelen, V.

——, Tegelen clays.—**2**, Richarz, P. S., 2.

——, dentition.—**0**, Schlesinger, G.; **1**, Airaghi, C., 10; Mariani, E., 8; Sheppard, T., 7; Stefanescu, S., 1–4; **2**, Dietrich W. O., 6; Stefanescu, S.

——, evolution.—**2**, Osborn, H. F., 5; Sœrgel, W., 1–3; Stefanescu, S., 3.

——, Lazio.—**0**, Meli, R., 5.

——, Pas-de-Calais.—**0**, Commont, V.

——, phylogeny.—**0**, Osborn, H. F., 2; Stefanescu, S.; **2**, Stefanescu, S., 2.

Prochlorite.—**0**, Shannon, E. V., 13; **2**, Shannon, E. V., 6.

Proctotrypidæ.—**0**, Meunier, F., 2.

Productus.—**0**, Sibly, T. F.

—— - limestones, French Indo-China.—**0**, Mansuy, H., 4.

Proëtus.—**2**, Richter, R., 9.

Prokopi valley (Bohemia).—**0**, Woldřich, J., 2.

Prolecanitidæ.—**0**, Wedekind, R.

Promerycochœrus.—**1**, Thorpe, M. R.

Pronsfeld (Eifel).—**1**, Leppla, A., 7.

Propiac (Drôme).—**1**, Termier, P., 4.

Propylite, Silesia.—**2**, Stauffacher, J., 2.

Prospecting, mineral.—**0**, Roux-Brahic, J.; **1**, Locke, A.; Mennell, F. P., 5; **2**, Campbell, J. M. *See also* Geophysical prospecting.

Proterotheriidæ.—**2**, Frenguelli, G., 2.

Protochoanites.—**0**, Grabau, A. W., 6.

Protogine, Aar Massif.—**1**, Hugi, E., 2.

——, Haute-Savoie.—**1**, Douvillé, H., 14.

Protopterus.—**0**, Stromer, E.

Protoschizodus.—**1**, Muehlen, L. v. z.

Protoscolex.—**0**, Bather, F. A.

Protozoa.—**0**, Rosén, S.

Provence (France).—**0**, Werenskiold, W., 2; **2**, Denizot, G., 2; Guébhard, A., 4.

Prussia.—**0**, Behr, F. M.; Jentzsch, A., 4; **1**, Frey, G.; Huelsenbeck, B.; Schrœder, H., 4; Wieegrs [Wiegers], F., 2; **2**, Brauns, R., 5; Fromme, J., 1, 3.

Prussia, bibliography.—**1**, Kaiser, E.

——, geological survey.—**2**, Beyschlag, F.

——, Mesozoic.—**0**, Bœhm, J., 7; Freyberg, B. v.; **1**, Grupe, O., 8; Mestwerdt, A.; Naumann, E., 4, 6; Schrœder, H., 2, 3, 6; **2**, Wuest, E.

——, mineral resources.—**1**, Scupin, H., 2; Simmersbach, B., 4; **2**, Beyschlag, F., 10; Heberle, W.; Hess von Wichdorff, H.; Kling, P.; Rózsa, M., 5.

——, Quaternary.—**1**, Barsch, O., 1, 2; Clausnitzer, —; Korn, J., 3–6: Schroeder, H., 7; Wieegrs [Wiegers], F.; **2**, Henkel, L.; Keilhack, K., 2.

——, tectonics.—**0**, Krusch, P., 3; Linstow, O. v., 2; **1**, Naumann, E., 11; Vogel, H., 1, 2.

Psammites, Liége.—**0**, Anten, J.

Pseudacesta.—**1**, Rozlozsnik, P., 6.

Pseudoclastic structure.—**2**, Liesegang, R. E.

Pseudo-*Cryptozoön* structure.—**2**, Howchin, W., 2.

—— - crystals, graphite.—**0**, Tipper, G. H., 3.

Pseudocycas.—**1**, Berry, E. W., 4.

Pseudodiadema.—**1**, Sheppard, T., 8.

Pseudomalachite.—**2**, Cesàro, G., 2.

—— - meteorite.—**0**, Kunz, G. F.

Pseudomorphs.—**1**, Liesegang, R. E.; Tacconi, E., 2; **2**, Bauer, M., 2; Hezner, L.; Laubman, H., 2–4.

—— -orthoclase.—**2**, Cathrein, A.

Pseudopygaster.—**2**, Hawkins, H. L.

Pseudosuchia.—**2**, Haughton, S. H.

Pseudovolcanism, Etna.—**1**, Fiore, O. de.

Psiloceras.—**1**, Cousin, G.

Psilophytales.—**2**, Bugnon, P.

Psilophyton.—**1**, Fraipont, C.; Halle, T. G.

Pskov (Russia).—**1**, Burre, O.

Psychozoic.—**0**, Grabau, A. W., 7.

Psygmophyllum.—**2**, Nathorst, A. G.; Zalessky, M. D., 2.

Pteranodon.—**2**, Wiman, C., 3.

Pteridophyta.—**1**, Scott, D. H.; **2**, Kidston, R., 2.

Pteridosperms.—**0**, Gothan, W., 2; Grandori, L.; **1**, Picquenard, C., 2.

Pteropoda.—**1**, Cobbold, E. S.; **2**, Pilsbry, H. A.

Pteropsida.—**0**, Grandori, L., 2.

Pterosauria.—**1**, Arthaber, G. v.; **2**, Nopcsa, F., 3.

——, Cretaceous.—**2**, Wiman, C., 3.

——, Jurassic.—**0**, Broili, F.

——, Lias.—**1**, Hauff, B.

——, Trias.—**2**, Huene, F. v., 9.

Pterygopteris.—**2**, Johansson, N.

Pterygotus.—**2**, Ruedemann, R., 2.

Ptilocrinus.—**0**, Wanner, J.

Ptychites.—**0**, Wurm, A.; **2**, Claus, H.

Ptychodus.—**1**, Fossa-Mancini, E., 2.

Ptychogasteridæ.—**1**, Stefano, G. de, 8.

Ptycholepis.—**0**, Hennig, E., 5.

Ptychopotamides.—**2**, Charpiat, R., 3.

Ptygmatic folding, Fennoscandia.—**0**, Holmquist, P. J. ; Sander, B.

Puebla (Mexico).—**0**, Camacho, H., 2 ; **1**, Bœse, E. ; Lozano, E. D., 2 ; Paredes, T. ; **2**, Wittich, E., 5.

Puente formation, California.—**1**, Chaney, R. W.

Puglia (Italy).—**0**, Checchia-Rispoli, G. ; Sacco, F., 4 ; **1**, Checchia-Rispoli, G. ; Crema, C. ; Dominicis, A. de, 1, 3.

Puhipuhi (N.Z.).—**2**, Cropp, W. H.

Pumice.—**2**, Endell, K. ; Goldschlag, M., 2.

——, New Zealand.—**1**, Howchin, W., 8 ; Speight, R.

——, Portuguese E. Africa. — **0**, Holmes, A., 9.

——, Rheinland.—**1**, Brauns, R., 4 ; **2**, Brauns, R., 13.

——, S. Australia.—**0**, Howchin, W., 8.

—— -sand. *See* Sands.

Puna de Atacama (Argentina).—**2**, Gerth, H., 2 ; Penck, W.

Punjab.—**0**, Pinfold, E. S., 1, 2 ; Vredenburg, E. W., 8 ; Zuber, R. ; **1**, Pascoe, E. H. ; Preiswerk, H.

Purbeck, Isle of (Dorset).—**2**, Strahan, A.

Purbeck beds, Sussex.—**2**, Milner, H. B., 3.

Purcell Range (B.C.).—**2**, Burling, L. D. ; Shepard, F. P., 2, 4.

Purcell trench (B.C.).—**0**, Schofield, S. J., 3.

Purley (Surrey).—**1**, Whitaker, W., 4 ; **2**, Dibley, G. E., 2.

Pustertal (Trentino).—**0**, Hradil, G.

Puy-de-Dôme (France.) — **0**, Glangeaud, P., 2 ; **1**, Glangeaud, P., 1, 2 ; **2**, Garde, G., 1, 2 ; Glangeaud, P., 2 ; Loisel, P., 2.

Puy Mary (Cantal).—**1**, Glangeaud, P., 5.

Puzosia.—**1**, Zimmermann, E., II, 3.

Pygope.—**1**, Caterini, F., 1, 2.

Pyrargyrite.—**2**, Muegge, O., 12.

Pyrenees.—**0**, Lacroix, A., 2 ; **1**, Douvillé, H., 16 ; Hallez, H., 3 ; Stuart-Menteath, P. W. ; **2**, Bertrand, L.

——, tectonics.—**0**, Bertrand, L. ; Stuart-Menteath, P. W., 2 ; **1**, Mengel, O., 1, 3 ; **2**, Bertrand, L., 3.

—— (Catalonian).—**0**, Maury, E.

—— (S.).—**2**, Douvillé, H., 8.

—— (W.), tectonics.—**0**, Stuart-Menteath, P. W. ; **1**, Palacios, P.

Pyrénées-Orientales (France). — **0**, Mengel, O., 1, 2 ; **1**, Mengel, O., 2, 3.

Pyrite.—**0**, Palache, C., 4 ; Spencer, L. J. ; **1**, Dove, L. P. ; **2**, Chaudron, G. ; Zimányi, K.

Pyrite, Austria.—**1**, Chlebus, P. ; **2**, Reitzenstein, W. v.

——, Bukowina.—**2**, Pascu, R., 4.

——, Canada.—**0**, Hanson, G. ; Robinson, A. H. A.

——, Norway.—**1**, Vogt, T. ; **2**, Falkenberg, O. ; Holmsen, G.

——, Ontario.—**1**, Wilson, M. E.

——, Portugal.—**2**, Scotti, H. v.

——, Slovakia.—**2**, Krusch, P., 2 ; Lachmann, R.

——, Spain.—**1**, Collins, H. F. ; **2**, Burthe, P. L. ; Pilz, R. ; Scotti, H. v.

——, Sweden.—**1**, Asklund, B.

——, Tuscany.—**2**, Lohmann, F.

——, United States.—**0**, Kunz, G. F. ; Lee, H. S. ; United States, 4, 6, 8 ; Wherry, E. T., 2 ; **1**, United States, 4 ; **2**, Schrader, F. C.

——, Westphalia.—**1**, Schmidt, W. E. ; **2**, Bergeat, A., 1, 2.

——, in coal.—**0**, Thiessen, R., 2 ; **1**, Ashley, H. G., 2 ; Thiessen, R. ; Wheeler, R. V.

——, world's production.—**2**, Great Britain, 18 ; United States, 9, 11.

Pyrmont (Prussia).—**1**, Huelsenbeck, B.

Pyroaurite.—**0**, Foshag, W. F., 6 ; **2**, Foshag, W. F.

Pyroclastic deposits, Carnarvonshire. —**2**, Williams, H.

Pyroxene-andesite. *See* Andesite.

—— -granulite. *See* Granulite.

—— -rocks, Bohemia.—**0**, Želízko, J. V., 8.

—— - ——, Saxony.—**2**, Bergt, W., 3.

Pyroxenes.—**2**, Dœlter, C., 2 ; Kratzert, J. ; Schumoff-Deleano, V. *See also* Sobralite, *&c.*

Pyroxenite, Brunswick.—**2**, Uhlig, J., 2.

——, France.—**1**, Brière, Y.

——, Moravia.—**0**, Kretschmer, F.

——, Norway.—**2**, Goldschmidt, V. M., 6.

Pyrrhotite.—**0**, Rosenlund, A. L. ; Vogt, J. H. L., 2 ; **1**, Tacconi, E., 2 ; **2**, Boydell, H. C., 2 ; Eakle, A. S.

——, Hesse.—**1**, Eitel, W., 5.

——, Moravia.—**2**, Glatzel, E., 3.

——, nickeliferous, California. — **2**, Hudson, F. S.

Q

'Quaderkalk,' Franconia.—**0**, Schuster, M.

Quarries, Great Britain.—**0**, Great Britain, 3, 4.

——, slate, Wales (N.).—**1**, Hobson, W. D.

Quartz.—**0**, Bellière, M., 3 ; Cayeux, L., 4 ; **1**, Holmquist, P. J., 4 ; **2**, Kalb, G., 3 ; Muegge, O., 14, 16 ; Nacken, R., 2 ; Perrier, A. ; Ray, R. C. ; Wild, G. O.

Quartz, Bohemia.—**0**, Želízko, J.V., 4.
——, Lombardy.—**1**, Repossi, E., 5.
——, Norway.—**2**, Andersen, O., 2.
——, Travancore.—**0**, Chacko, I. C.
——, crystallography.—**1**, Arlt, H. ; Bézier, T., 2 ; Liebisch, T., 1, 4, 5 ; Mauguin, C. ; Steinmetz, H. ; **2**, Brauns, R., 9 ; Grill, E., 4 ; Hawkins, A. C. ; Siedel, P.
——, in limestones.—**0**, Behr, F. M. ; Lapparent, J. de, 2.
——, opalescent.—**1**, Kalkowsky, E.
——, smoky.—**2**, Doss, B., 2.
——, vein-filling.—**0**, Lindgren, W., 3.
——. *See also* Morion *&* Porphyry-quartz.
Quartz-brick. *See* Silica-brick.
—— -diabase, *&c.* *See* Diabase, *&c.*
Quartzite, Austria.—**1**, Mohr, H.
——, Finland.—**0**, Wilkman, W. W.
——, French Indo-China.—**2**, Jacob, C.
——, Liége.—**1**, Fourmarier, P., 9.
——, Madagascar.—**2**, Lacroix, A., 2.
——, Mysore.—**0**, Iyer, V. S. S.
——, Norway.—**1**, Oxaal, J.
——, Rheinland.—**0**, Lœscher, W., 2 ; **1**, Vieetor, W.
——, Slovakia.—**1**, Vitális, S., 2.
——, Sweden.—**1**, Backlund, H. G., 2 ; Frœdin, G.
——, Transvaal.—**2**, Hall, A. L., 5.
——, W. Australia.—**1**, Woolnough, W. G.
——, inclusions of, Sumatra. — **2**, Brouwer, H. A., 5.
——, pebbles, London Basin.—**0**, Baker, H. A.
——. *See also* ‘ Dinasstein.’
Quartzose conglomerate, Staffordshire.—**0**, Barke, F. ; Jackson, J. W., 2.
Quaternary.—**0**, Ramann, E. ; Zeil, G. ; **1**, Taramelli, T., 10; Vaughan, T. W. ; **2**, Dachnowski, A. P.
——, Aberdeenshire.—**1**, Mahood, A. E.
——, Abruzzi.—**0**, Crema, C., 2 ; **1**, Chelussi, I., 4.
——, Africa (E.).—**2**, Reck, H.
——, Alaska.—**0**, Capps, S. R., 1, 4 ; Maddren, A. G., 3 ; Mertie, J. B., *fil* ; **1**, Eakin, H. M. ; Moffit, F. H.
——, Albania.—**0**, Bourcart, J., 2 ; **1**, Nowak, E. ; **2**, Nowak, E., 6.
——, Algeria. — **1**, Blayac, J. ; Savornin, J.
——, Alpes-Maritimes.—**0**, Gignoux, M. ; **1**, Maury, E., 2.
——, Alps.—**1**, Hallez, H., 3 ; **2**, Ampferer, O., 3.
——, Apennines.—**1**, Principi, P.
——, Argentina.—**0**, Frenguelli, J., 3, 4 ; Rovereto, G. ; Witte, L. ; **1**, Ameghino, F., 4 ; Cardoso, A. ; Frenguelli, J., 2 ; Roth, S. ; Rovereto, G., 2 ; Torcelli, A. J. ; **2**, Ameghino, F. ; Fenton, E. G.
Quaternary, Arizona. — **2**, Bryan, K., 2.
——, Austria.—**1**, Hassinger, H. ; Penck, A., 4 ; Spitz, A. ; **2**, Guerich, G.
——, Baltic area.—**2**, Sundelin, U., 3.
——, Banffshire.—**1**, Mahood, A. E.
——, Beaconsfield area.—**2**, Sherlock, R. L., 4.
——, Belgium.—**0**, Commont, V., 2 ; Fourmarier, P., 4 ; **1**, Hallez, H., 2, 3 ; Rutot, A., 2, 5 ; Velge, G. ; **2**, Halet, F. ; Hasse, G. ; Rutot, A. ; Steenhuis, J. F. ; Van Straelen, V., 2.
——, Bournemouth area.—**2**, Smith, R. A.
——, Brandenburg.—**1**, Gagel, C., 5 ; Schucht, F. ; Wahnschaffe, F., 2.
——, British Isles.—**0**, Brooks, C. E. P.
——, Brittany.—**1**, Milon, Y.
——, Burgundy.—**0**, Depéret, C., 3.
——, California.—**0**, Smith, J. P.
——, Calvados.—**2**, Azam, A.
——, Campania.—**1**, Bellini, R.
——, Cantal.—**2**, Boisse de Black, Y., 1–3.
——, Celebes.—**0**, Abendanon, E. C.
——, Ceylon.—**1**, Wayland, E. J.
——, Cornwall.—**2**, Woodward, B. B., 2.
——, Cyrenaica.—**1**, Stefanini, G., 2.
——, Danzig.—**1**, Stremme, H.
——, Denmark.—**0**, Johansen, A. C. ; **1**, Jessen, A., 1, 2 ; Jessen, K. ; Milthers, V., 2–9 ; Œdum, H. ; **2**, Madsen, V.
——, Dolomites.—**1**, Sacco, F., 6.
——, Durham.—**0**, Trechmann, C. T. ; **2**, Lamplugh, G. W., 2 ; Woolacott, D.
——, E. Prussia.—**1**, Hess von Wichdorff, H., 1, 6 ; Klautzsch, A., 2, 6 ; Krause, P. G. ; Meyer, E., 1, 2, 6.
——, Egypt.—**0**, Stromer, E., 2 ; **2**, Moon, F. W.
——, England (E.).—**2**, Kennard, A. S.
——, Europe.—**0**, Brooks, C. E. P. ; **1**, Hausen, H. ; Wunderlich, E.
——, —— (N.).—**1**, Brooks, C. E. P. ; Hinch, J. de W. ; **2**, Antevs, E. ; Depéret, C.
——, Fennoscandia.—**0**, Carlzon, C. ; Hœgbom, A. G.
——, Finland.—**0**, Ramsay, Wilhelm ; **1**, Berghell, H.
——, France.—**0**, Saint-Jours, B. ; **1**, Hallez, H., 3 ; **2**, Leriche, M., 10.
——, —— (N.E.).—**0**, Commont, V. 2 ; **1**, Gosselet, J. ; Rutot, A., 1, 2.
——, Franconia.—**1**, Seyfried, E. v.
——, Germany (E.).—**1**, Milthers, V.
——, Gironde.—**0**, Peyrot, A. ; **1**, Degrange-Touzin, A.
——, Gloucestershire.—**0**, Gray, J. W.

Quaternary, Hampshire basin. — **1**, White, H. J. O., 2 ; **2**, Hooley, R. W.
——, Hanover.—**1**, Stoller, J., 3 ; Wildvang, D.
——, Herefordshire.—**0**, Gray, J. W.
——, Hesse-Nassau. — **1**, Blanckenhorn, M., 5 ; **2**, Drevermann, F., 3.
——, Holland.—**2**, Halet, F.
——, Hungary.—**0**, Kormos, T., 2 ; **1**, Horusitzky, H., 3 ; Lóczy, L. v., *fil.*
——, Iceland.—**1**, Bárdarson, G. G.
——, Ille-et-Vilaine.—**1**, Kerforne, F. 5.
——, Illinois.—**0**, Cady, G. H. ; Hinds, H. ; **2**, Savage, T. E., 1, 2 ; Shaw, E. W.
——, Iowa.—**0**, Kay, G. F. ; **2**, Arey, M. F., 1, 2 ; Gow, J. E. ; Tilton, J. L., 2, 3.
——, Iraq.—**2**, Pascoe, E. H.
——, I. of Wight.—**1**, White, H. J. O.
——, Istria.—**1**, Taramelli, T., 3 ; Winkler, A.
——, Italy (S.).—**2**, Wepfer, E., 4.
——, Lazio.—**1**, Portis, A.
——, Lombardy.—**1**, Alessandri, G. de, 3; Brunati, R. ; Repossi, E. ; Salmojraghi, F., 2, 5.
——, London area.—**2**, Dewey, H., 2 ; Woodward, H. B.
——, Lübeck, — **1**, Gagel, C. ; Schlunck, J.
——, Manitoba.—**0**, Alcock, F. J., 2 ; Bruce, E. L., 2 ; **2**, Johnston, W. A., 2.
——, Marche.—**0**, Segré, C.
——, Marne.—**0**, Denizot, G.
——, Maryland.—**0**, Little, H. P. ; Miller, B. L., 3.
——, Meuse R. area.—**1**, Levy, F.
——, Mexico.—**1**, Lozano, E. D.
——, Michigan.—**0**, Sherzer, W. H.
——, Minnesota.—**0**, Leverett, F. ; Sardeson, F. W.
——, Missouri valley.—**1**, Greene, F. C.
——, New Zealand.—**0**, Adkin, G. L.; Speight, R., 2 ; **1**, Henderson, J., 5.
——, Nord.—**1**, Gosselet, J., 2.
——, Norfolk.—**1**, Whitaker, W.
——, N. America.—**1**, Geer, G. de, 2 ; **2**, Goldring, W.
——, Norway.—**0**, Danielsen, D. ; Reusch, H., 8 ; **1**, Œyen, P. A. ; Oxaal, J. ; Reusch, H. ; Shetelig, H.
——, Ohio.—**1**, Stout, W.
——, Ontario.—**2**, Keele, J., 2.
——, Paris area.—**1**, Dollfus, G. F., 9, 10 ; Dollot, A., 2–6.
——, Pas-de-Calais.—**1**, Pontier, G. ; **2**, Dubois, G.
——, Pembrokeshire.—**1**, Dixon, E. E. L.
——, Peru.—**0**, Bosworth, T. O., 3 ; **1**, Bosworth, T. O., 2 ; **2**, Bosworth, T. O.
Quaternary, Piedmont. — **0**, Sacco, F., 10, 12 ; **1**, Sacco, F., 4 ; **2**, Negri, G.
——, Poland.—**1**, Cramer, R. ; Korn, J., 6 ; Milthers, V.
——, Pomerania.—**1**, Linstow, O. v., 8.
——, Porto Rico.—**2**, Mitchell, G. J.
——, Prussia.—**1**, Barsch, O., 2 ; Clausnitzer, — ; Huelsenbeck, B. ; Korn, J., 6 ; Schrœder, H., 4 ; **2**, Henkel, L.
——, Quebec.—**2**, Keele, J., 2 ; Mackay, B. R.
——, Rheinland.—**1**, Fliegel, G., 4 ; Quaas, A., 1, 2 ; Zimmermann, E., II, 7.
——, Rhine R. area.—**1**, Levy, F.
——, Romania.—**1**, Kormos, T., 2 ; Wachner, H. ; **2**, Athanasiu, S. C., 5 ; Preda, D. M., 5 ; Sevastos, R., 3, 4.
——, Russia (N.W.).—**1**, Homén, T.
——, Sahara.—**1**, Chudeau, R., 5.
——, Savoie.—**0**, Kilian, W., 7.
——, Saxony.—**0**, Kampfrath, A. ; Pietzsch, K., 3.
——, Scandinavia.—**0**, Halden, B., 2 ; **2**, Œyen, P. A.
——, Schleswig-Holstein.—**1**, Wahnschaffe, F. ; Wolff, W.
——, Seine-et-Marne.—**1**, Ameghino, F., 15–19.
——, Sicily.—**2**, Wepfer, E., 4.
——, Silesia.—**1**, Berg, G., 4 ; Guerich, G. ; Keilhack, K., 6 ; Tietze, O., 4, 7 ; Zimmermann, E., I, 6 ; **2**, Frech, F.
——, Slovakia. — **1**, Ferenczi, S. ; Lóczy, L. v., *fil*, 2.
——, S. Australia. — **1**, Howchin, W.
——, Spain. — **1**, Obermaier, H. ; Pérez-Cossio, L. ; **2**, Gignoux, M., 3 ; Roman, F.
——, Spitsbergen.—**1**, Sandegren, R.
——, Suffolk.—**2**, Smith, R. A., 2.
——, Surrey.—**0**, Monckton, H. W. ; **1**, Whitaker, W., 4.
——, Swabia.—**0**, Geyer, D.
——, Sweden.—**0**, Ahlmann, H. W. ; Munthe, H. ; Post, L. v. ; Sandegren, R. ; Sundelin, A. ; **1**, Halden, B. E. ; Hœgbom, A. G. ; Sandegren, R. ; **2**, Halden, B. E., 2, 4 ; Sundelin, U., 1, 2 ; Sweden.
——, Switzerland.—**0**, Buxtorf, A. ; Christ, P. ; Gutzwiller, A., 1, 2 ; Jeannet, A. ; Lagotala, H. ; Musy, M. ; **1**, Beck, P., 2 ; Braun, L. ; Gerber, E. ; Marty, P. ; **2**, Lagotala, H., 1, 2 ; Mollet, H. ; Nolthenius, A. B. T.
——, Tanganyika.—**1**, Branca, W.
——, Trentino.—**0**, Schwinner, R., 3 ; **2**, Fabiani, R., 5.
——, Tunis.—**1**, Joleaud, L., 5.
——, Tuscany.—**1**, Merciai, G., 2 ; **2**, Caterini, F.
——, Umbria.—**2**, Principi, P.

Quaternary, United States. — **0**, Hinds, H., 3 ; Shaw, E. W., 5.
——, Venetia.—**2**, Dal Piaz, G., 3 ; Fabiani, R., 5 ; Feruglio, E. ; Taramelli, T. ; Zenari, S.
——, Victoria.—**1**, Walcott, R. H.
——, Westphalia.—**1**, Gœbel, F.
——, Wisconsin.—**0**, Alden, W. C.
——, Worcestershire.—**0**, Gray, J. W.
——, Württemberg.—**0**, Lœffler, K. ; **1**, Kessler, P., 2.
——, Yorkshire.—**1**, Sheppard, T., 6 ; **2**, Crofts, W. H. ; Sheppard, T., 4.
——, chronology.—**0**, Ampferer, O., 2 ; Depéret, C., 2.
——, classification.—**0**, Grabau, A. W., 7 ; **1**, Hallez, H. ; **2**, Biasutti, R. ; Geer, G. de.
——, glacial & interglacial periods.—**0**, Négris, P. ; Sacco, F., 35 ; **1**, Geinitz, E. ; Howchin, W., 9 ; Négris, P., 5.
——, regression.—**1**, Négris, P., 2, 3 ; **2**, Négris, P., 2.
——, travertine, Eifel.—**1**, Sommermeier, L.
——. *See also* Loess, Pleistocene, *&c.*
Quebec.—**0**, Coleman, A. P., 2 ; **1**, Anrep, A. ; Twenhofel, W. H. ; **2**, Anrep, A. ; Coleman, A. P., 1, 2 ; Mackay, B. R. ; Sayles, R. W., 2.
——, igneous rocks.—**0**, Stansfield, J. ; **1**, Dresser, J. A. ; **2**, Bowen, N. L.
——, mineral production.—**0**, Quebec ; **1**, Quebec, 1, 2 ; **2**, Quebec.
——, mineral resources.—**0**, Anon., 46 ; Fréchette, H. ; **1**, Keele, J., 3 ; Peattie, R. ; **2**, Harvie, R. ; Keele, J., 2 ; Wilson, M. E.
——, ore-deposits.—**0**, Gwillim, J. C., 1, 4 ; Hanson, G. ; Mailhiot, A. ; **1**, Fréchette, H. ; Robinson, A. H. A. ; **2**, Alcock, F. J.
——, stratigraphy.—**0**, Cooke, H. C., 3 ; Twenhofel, W. H., 2 ; **1**, Bagg, R. M. ; Clarke, J. M., 5 ; Goldring, W. ; Wilson, M. E., 2 ; **2**, Twenhofel, W. H.
——. *See also* Labrador.
Queensland.—**0**, Dunstan, B. ; **1**, Anon., 22 ; **2**, Jensen, H. I., 3 ; Queensland.
——, coal.—**0**, Cameron, W. E. ; Reid, J. H., 2, 3 ; **2**, Morley, W. J. ; Morton, C. C., 2 ; Reid, J. H.
——, mineral resources.—**0**, Reid, J. H., 1, 3, 4 ; Saint-Smith, E. C., 2 ; **1**, Dunstan, B. ; **2**, Anon., 27 ; Saint-Smith, E. C.
——, ore-deposits.—**0**, Ball, L. C. ; Jensen, H. I., 1, 2 ; Saint-Smith, E. C. ; **1**, Anon., 21, 23 ; Ball, L. C. ; Morton, C. C. ; **2**, Ball, L. C., 1–3 ; Dunstan, B., 2 ; Jensen, H. I., 2.
——, petroleum.—**1**, Jensen, H. I. ; **2**, David, T. W. E. ; Jensen, H. I., 5 ; Morton, C. C.
Queensland, stratigraphy. — **1**, Dun, W. S. ; Reid, J. H. ; **2**, Jensen, H. I., 4.
Queenstown (Vict.).—**2**, Kenny, J. P. L., 3.
Quenast (Brabant).—**1** & **2**, Hankar-Urban, A.
Quenstedticeras.—**0**, Reeside, J. B., *fil*, 2.
Quercus.—**2**, Colani, M., 2.
Queyras (Hautes-Alpes).—**0**, Termier, P., 10.
Quicksilver. *See* Mercury.
Quisque.—**2**, Jordan, D. S.
Quseir (Egypt).—**0**, Hume, W. F., 4.

R

Raasay I. (Scotland).—**0**, Lee, G. W.
Rabat (Morocco).—**1**, Savornin, J., 3.
Rabaul (Bismarck Archip.).—**0**, Johnson, G. J.
Rabutz (Prussia).—**2**, Keilhack, K., 2.
Radioactive minerals. — **0**, Petrascheck, W., 2 ; **1**, Bellini, R., 3 ; Lowe, H. J., 2 ; Schœp, A. ; **2**, Buttgenbach, H., 3 ; Ellsworth, H. V. ; Muegge, O., 17 ; Schœp, A., 1, 5–9.
—— rocks, Oberland.—**0**, Poole, J. H. J.
—— ——, Portuguese E. Africa.—**0**, Holmes, A., 9.
—— sediments. *See* Sediments.
Radioactivity.—**0**, Holmes, A., 5, 15 ; Johnstone, J. H. L. ; **2**, Brierly, J. C. A.
——, earth's age &.—**0**, Holmes, A., 1, 2 ; **1**, Russell, H. N. ; **2**, Joly, J., 1, 2 ; Rayleigh, Lord.
——, of sea-water.—**0**, Sverdrup, H. U.
Radiographs.—**1**, Lowe, H. J., 2.
Radiolaria.—**0**, Abendanon, E. C.
——, Cretaceous.—**2**, Koch, F.
——, Culm.—**1**, Weigelt, J.
——, Mesozoic.—**2**, Dickerson, R. E., 3 ; Squinabol, S., 1, 2.
——, in flint.—**1**, Carus-Wilson, C. ; Cole, G. A. J., 6.
Radiolarite, Rhine Valley. — **1**, Krause, P. G., 3.
Radium.—**0**, Johnstone, J. H. L. ; Moore, R. B. ; Petrascheck, W., 2 ; **2**, Ellsworth, H. V. ; United States, 8, 10.
—— radiation, coloration of minerals &.—**2**, Dœlter, C., 6.
Radom (Poland).—**1**, Pawlica, W. ; **2**, Krukowski, S.
——. *See also* Sainte-Croix.
Raimeux Mts. (Berne).—**1**, Elber, R.
Rainfall, physiography &. — **0**, Meunier, S., 5 ; **1**, Luetschg, O.
Rain-prints.—**0**, Dœrpinghaus, W. T., 2 ; **2**, Twenhofel, W. H., 2.

Raised beaches, Devon.—**0**, Beynon, F.
—— ——, Durham.—**2**, Lamplugh, G. W., 2; Woolacott, D.
—— ——, Hebrides.—**0**, Bishop, A. H.
—— ——, Ille-et-Vilaine.—**0**, Dautzenberg, P., 2.
—— ——, Jersey.—**0**, Lemprière, R. R.
—— ——, Yorkshire.—**1**, Lamplugh, G. W.
—— ——. *See also* Platforms, Strand-lines, *&c.*
Rajputana (India).—**1**, O'Connor, P. C. S.; **2**, Roy, S. K.
Rallig beds, Switzerland.—**1** & **2**, Baumberger, E.
Rammelsberg (Harz). — **1**, Grumbrecht, A.
Rancagua (Chile).—**2**, Lindgren, W., 4; Marsh, R., *fil.*
Rand (Transvaal).—**2**, Hatch, F. H., 2.
Randen (Schaffhausen).—**2**, Huebscher, J.; Niggli, P., 10.
Rann (Carniola).—**1**, Heritsch, F., 4–6.
Ranunculus.—**0**, Wall, A.; **2**, Cockerell, T. D. A., 4; Reid, E. M., 2.
Rapallo (Liguria).—**2**, Rovereto, G., 2.
R'arb (Morocco).—**1**, Lutaud, L.
Rare-earth minerals. — **0**, United States, 5, 9.
Rare gases. *See* Gas.
Ras Dib (Egypt).—**0**, Madgwick, T. G.
Rastenberg (Thuringia).—**1**, Naumann, E., 7.
Rat R. area (Manit.).—**1**, Alcock, F. J., 3.
Ratingen (Rheinland).—**1**, Zimmermann, E., II.
Raton (N. Mex.).—**0**, Lee, W. T., 4.
Rätzlingen (Prussia).—**1**, Barsch, O., 2; Clausnitzer, —.
'Raukar,' rock-erosion.—**1**, Munthe, H., 2.
Ravensbourne R. area (Kent).—**1**, Hutchinson, G. E.
Rax Alpe (Austria).—**0**, Gœtzinger, G., 3.
Ray (Ariz.).—**0**, Ransome, F. L.
Reaction rims.—**0**, Sederholm, J. J.; **2**, Kemp, J. F.
Read (Tasmania).—**0**, Hills, L.
Reaumurite.—**2**, Bowen, N. L., 2.
Recent, British Columbia.—**1**, Johnston, W. A., 1, 2.
——, Sahara (S.).—**1**, Pellegrin, J.
——, Scandinavia.—**2**, Œyen, P. A., 5.
——, S. Victoria Land.—**2**, Debenham, F.
——, United States (E.).—**0**, Vaughan, T. W., 3.
Rechnitz (Styria).—**1**, Jugovics, L.
Réchy valley (Valais).—**0**, Lencewicz, S., 4.
Reclamation, tidal lands.—**2**, Great Britain, 1, 2.
Reconstitution processes.—**1**, Brammall, A.
Recrystallization.—**1**, Gaubert, P.
Red beds, Anglesey.—**0**, Greenly, E.
—— ——, Oklahoma-Wyoming.—**0**, Knight, S. H.; **2**, Thompson, D. G., 2.
—— chalk, England (E.).—**2**, Kitchin, F. L.
—— clay, sea-bottom.—**1**, Andrée, K., 2; Merwin, H. E., 2.
—— Crag, Suffolk.—**1**, Moir, J. R., 3.
—— earths, Istria.—**1**, Salmojraghi, F., 3.
—— 'layer,' S. Dakota.—**2**, Sinclair, W. J., 2.
—— rocks, Midlands.—**2**, Whitehead, T. H.
Red Sea area.—**1**, Hume, W. F.
Redesdale (Vict.).—**2**, Whitelaw, H. S., 2.
Redonian, Brittany.—**0**, Kerforne, F., 9; **2**, Milon, Y.; Péneau, J., 3.
Redwitzite.—**0**, Willmann, K.
Reed L. area (Manit.).—**1**, Alcock, F. J.
Reef-conglomerate. *See* Conglomerates.
Reefs, Carboniferous Limestone, Mayenne.—**2**, Delépine, G.
Reefton (N.Z.).—**1** & **2**, Henderson, J., 2.
Reflection, crystals.—**2**, Berberich, P.
—— -goniometer. *See* Goniometer.
Refraction, double.—**1**, Berek, M., 2; Ehringhaus, A., 1–3; Wenzel, A.
Refractive indices, liquids for.—**1**, Thomas, Herbert H.
—— ——, minerals.—**0**, McCaughey, W. J.; **1**, Cotton, L. A.; Koller, P.; **2**, Brauns, R., 2; Lehmann, E.
—— ——. *See also* Immersion method.
Refractometer.—**1**, Thomas, Herbert H.
Refractories.—**0**, Scott, A.; **2**, Andersen, O.; Boswell, P. G. H., 8.
——, Great Britain.—**0**, Lamplugh, G. W., 35; Thomas, Herbert H., 2.
——, London Basin.—**1**, Dewey, H., 2.
——, Midlands.—**0**, Fearnsides, W. G.
——, Staffordshire.—**0**, Scott, A., 2.
——, siliceous, Côtes-du-Nord. — **1**, Kerforne, F., 4.
Regional surveys, geology, &.—**0**, Hewitt, W.
Reichelsheim (Odenwald). — **0**, Klemm, G., 5.
Reichenbach (Silesia).—**1**, Finckh, L., 2, 3.
Reichenhall (Bavaria).—**2**, Gillitzer, G.

Reichenstein (Silesia).—**1**, Reimer, W. ; **2**, Beutell, A., 9, 10.
Reigate (Surrey).—**0** & **2**, Butler, G. W.
Reineckeia.—**2**, Steuer, A.
Reinhardswald (Hesse). — **2**, Apel, K.
Relict fauna.—**2**, Arndt, W.
Relizana (Algeria).—**1**, Dalloni, M.
Remagen (Rheinland).—**2**, Skœtsch, C.
Remarkable, Mt. (S. Austr.).—**0**, Howchin, W., 4.
Rembang beds, Java.—**0**, Douvillé, H.
Remscheid (Rheinland).—**1**, Fuchs, A., 2.
Remüs (Graubünden).—**0**, Hammer, W., 4.
Renaix (E. Flanders).—**1**, Halet, F., 3.
Renfrewshire.—**0**, Hinxman, L. W.
Renison Bell (Tasmania).—**1**, Levings, J. H.
Rennes (Ille-et-Vilaine).—**0**, Dollfus, G. F., 19 ; Kerforne, F., 4, 5, 7, 8 ; **1**, Dollfus, G. F., 13.
Replacement, ore-genesis &.—**2**, Weston-Dunn, J. G.
Reptilia.—**0**, Adams, L. A. ; **1**, Abel, O., 2 ; Broom, R. ; **2**, Broom, R., 2, 3.
——, Cretaceous.—**1**, Rosenkrantz, A., 2 ; **2**, Corroy, G., 2.
——, Karroo system.—**0**, Haughton, S. H.
——, Permian.—**1**, Watson, D. M. S., 4.
——, Pliocene.—**0**, Bell, Alfred, 2.
——, Quaternary.—**0**, Bell, Alfred, 2.
——, Trias.—**0**, Taylor, W. ; **1**, Watson, D. M. S., 4 ; **2**, Wanner, H. E.
——, British Museum (N.H.).—**2**, British Museum (Natural History), 3.
——, cave-remains.—**1**, Gidley, J. W.
——, classification.—**2**, Huene, F. v., 10, 14.
——, diseases in.—**2**, Moodie, R. L.
——, Egypt.—**0**, Stromer, E., 2.
——, Senckenbergisch museum.—**0**, Drevermann, F., 2.
——, W. Indies.—**0**, Matthew, W. D.
——. *See also* Chelonia, Mesosauria, *&c.*
Reservoir lakes. *See* Lakes.
Resinous earth, New South Wales.—**0**, Smith, H. G.
Resins, in bituminous coal.—**2**, Gresley, W. S. ; Wheeler, R. V.
Reticularia.—**1**, Alkins, W. E., 2.
Retterschwangtal (Bavaria).—**2**, Cornelius, H. P., 7.
Retz (Lr. Austria).—**0**, Vetters, H., 2.
Réunion I. (Indian Ocean).—**1**, Lacroix, A., 2.
Rewahl (Pomerania).—**1**, Bœhm, J., 12.
Réz Mts. (Romania).—**1**, Roth von Telegd, K.
Rhætic, Bristol area.—**1**, Reynolds, S. H.
——, French Indo-China.—**2**, Mansuy, H., 12.
——, Germany. — **0**, Schlagintweit, O. ; **1**, Kessler, P. ; **2**, Meyer, H. L. F., 7 ; Schalch, F., 3.
——, Lombardy.—**1**, Alessandri, G. de, 3, 4 ; Bussandri, G. ; Mariani, E., 15.
——, Lorraine.—**1**, Kluepfel, W.
——, Switzerland (N.).—**2**, Schalch, F., 3.
Rhätikon (Graubünden-Vorarlberg).—**0**, Truempy, D. ; **2**, Cornelius, H. P., 2.
Rheiderland (Hanover). — **1**, Wildvang, D.
'Rheinische' dislocations, Germany.—**2**, Grupe, O. ; Haarmann, E., 2.
Rheinische Masse (Germany).—**2**, Harrassowitz, H. L. F., 5.
Rheinische Schiefergebirge (Prussia).—**0**, Bærtling, R., 3 ; Behr, F. M. ; **1**, Kaiser, E. ; Kirchberger, M. ; Vogel, H., 1, 2.
Rheinland (Germany).—**0**, Bærtling, R., 3 ; **1**, Brauns, R., 3, 5 ; Fourmarier, P., 11 ; Kirchberger, M. ; Quaas, A., 5 ; Zimmermann, E., II, 9 ; **2**, Altfeld, E. ; Fliegel, G., 2 ; Oostingh, C. H. ; Wegner, T., 2.
—— (——), Devonian.—**1**, Fliegel, G., 2 ; Fuchs, A., 2 ; Leppla, A., 4 ; Quiring, H. ; Vieetor, W. ; Vorster, H. ; **2**, Dœring, A. ; Fliegel, G. ; Richter, M. ; Winterfeld, F.
—— (——), ejectamenta.—**1**, Edel, G., 2 ; Halfmann, G. J. ; Halfmann, H. ; Schuster, E. ; Waterkamp, M. ; **2**, Brauns, R., 1, 2, 8, 14.
—— (——), geology.—**1**, Fliegel, G., 1, 4 ; Leppla, A., 5 ; Meyer, H. L. F., 3 ; Pietzcker, — ; Quaas, A., 2, 3 ; Zimmermann, E., II, 2, 4–6 ; **2**, Richter, M., 3 ; Richter, R., 3.
—— (——), inclusions in basalt.—**1**, Schuermann, E. ; **2**, Skœtsch, C. ; Wurm, C.
—— (——), mineral resources.—**0**, Margerie, E. de ; **1**, Quaas, A., 7 ; **2**, Pohl, H. ; Stahl, A., 2 ; Zœller, A.
—— (——), petrology.—**0**, Lœscher, W., 2 ; **1**, Brauns, R., 4 ; Edel, G. ; Hœpfner, A. ; **2**, Brauns, R., 13 ; Busz, K., 2.
—— (——), Quaternary.—**0**, Keilhack, K., 4 ; **1**, Hœppner, — ; Kurtz, E., 2 ; Zimmermann, E., II, 7.
—— (——), stratigraphy.—**1**, Bærtling, R. ; Dannenberg, A. ; Krause, P. G., 2 ; Oppenheim, P. ; Roth, U. ; Zimmermann, E., II, 1, 8.

Rheinland (Germany), tectonics.—**1**, Brockmeier, H.; Quiring, H., 4; Vogel, H., 1, 2.
—— (——), terraces.—**1**, Kurtz, E.; Quaas, A., 1, 4, 6; **2**, Knuth, H.
——. *See also* Eifel, Rhine Valley, *&c.*
Rheinsberg (Brandenburg).—**1**, Gagel, C., 3.
Rheinwald (Graubünden).—**0**, Wilckens, O., 8
Rhine R. area.—**1**, Levy, F.; **2**, Meigen, W.
Rhine Valley.—**0**, Kessler, P., 2; Werveke, L. v., 8, 9, 15, 16; **1**, Deecke, W., 2; Wittich, E., 3; **2**, Weber, M., 2.
—— —— (Lower).—**0**, Quaas, A.; **1**, Brauns, R.; Landgræber, W.; Quaas, A., 7, 8; Zimmermann, E., II, 2.
—— —— (——), Pleistocene. — **0**, Gagel, C., 7; **1**, Krause, P. G., 3; Kurtz, E., 2; Zimmermann, E., II, 10.
—— —— (——), terraces.—**1**, Jungbluth, F. A.; Quaas, A.; **2**, Quaas, A., 2; Van Baren, J.
—— —— (Upper). — **0**, Hassinger, H.; **1**, Grahmann, R.
Rhinoceridæ.—**1**, Matsumoto, H.; Troxell, E. L., 5, 6; **2**, Cooper, C. F., 2; Wuest, E., 2.
Rhinoceros.—**0**, Passemard, E.; **1**, Ugolini, R.
Rhode Island (U.S.A.).—**0**, Brown, C. W., 2; Emerson, B. K.; Perkins, E. H.
Rhodesia.—**0**, Maufe, H. B., 6; **1**, Mennell, F. P., 2, 3, 5; Rhodesia; Zealley, A. E. V., 2, 4.
—— (Northern). — **0**, Buttgenbach, H., 4; **1**, Murray-Hughes, R.; **2**, Anon., 25; Mennell, F. P.
—— (——), man.—**1**, Woodward, A. S., 5; **2**, Brinkmann, A.; Guillarmod, J. J., 2.
—— (Southern).—**0**, Maufe, H. B.; Molyneux, A. J. C.; **1**, Blackshaw, G. N.; McDonald, J. G.; Macgregor, A. M., 3; **2**, Macgregor, A. M.; Maufe, H. B.
—— (——), geological survey.—**0**, **1** & **2**, Southern Rhodesia.
—— (——), geology.—**0**, Maufe, H. B., 7; Mennell, F. P., 2; Molyneux, A. J. C., 2; **1**, Macgregor, A. M., 2; Maufe, H. B.
—— (——), mineral resources.—**0**, Maufe, H. B., 2; **1**, Anon., 24; Macgregor, A. M.; Zealley, A. E. V., 1, 3.
—— (——), stratigraphy.—**0**, Newton, R. B.; **1**, Maufe, H. B., 2; Molyneux, A. J. C.
Rhodium.—**0**, Howe, J. L.; **2**, Great Britain, 13.
Rhodochrosite.—**0**, Wyckoff, R. W. G.
Rhodonite.—**2**, Larsen, E. S., 2, 3.
Rhodope Mts. area (Balkan Penin.).—**2**, Petrascheck, W., 2.
Rhomaleosaurus.—**2**, Andrews, C. W., 2.
Rhomb-porphyry. *See* Porphyry.
Rhön (Bavaria).—**1**, Fischer, K.; Grupe, O., 4; **2**, Harrassowitz, H. L. F., 6.
Rhône basin (France).—**1**, Kilian, W., 8.
Rhône glacier (Valais).—**1**, Swiderski, B., 2.
Rhône valley (France).—**0**, Termier, P.; **1**, Doncieux, L.; Lugeon, M., 5, 8; **2**, Depape, G.
Rhynchonella.—**2**, Leidhold, C., 3.
Rhynchonellidæ.—**1**, Leidhold, C.
Rhynia.—**0**, Bower, F. O.; Kidston, R.; **2**, Kidston, R., 2.
Rhynie (Aberdeenshire).—**2**, British Association Committee, 2, 6; Kidston, R., 2.
Rhyolite, Carnarvonshire.—**2**, Williams, H.
——, French Indo-China.—**2**, Dussault, L.; Jacob, C., 1, 5.
——, Hungary.—**1**, Pálfy, M. v., 3.
——, Jersey.—**1**, Plymen, G. H., 1–3.
——, Lipari Is.—**0** & **1**, Washington, H. S., 4.
——, Pembrokeshire. — **2**, Part, G. M.
——, Portuguese E. Africa. — **1**, Young, R. B.
——, S. Rhodesia.—**2**, Macgregor, A. M.
——, United States (W.).—**0**, Lindgren, W., 5; **1**, Mansfield, G. R., 3.
——, alkaline, Timor.—**2**, Brouwer, H. A., 2.
——, phonolitic, Kenya.—**2**, Gregory, J. W.
——, riebeckite-, Sudan.—**0**, Smith, W. C.
Rhyolitic pebbles. *See* Pebbles.
Ribblesdale (Yorks).—**2**, Garwood, E. J.
Ribstone valley (Alberta).—**1**, Dowling, D. B.
Rice L. area (Manit.).—**2**, Cooke, H. C., 2.
Richelsdorfer Gebirge (Hesse).—**2**, Krusch, P., 5.
Richmond (Tasmania).—**2**, Nye, P. B.
Richmond R. area (N.S.W.).—**2**, Chapman, F., 5.
Richthofenia.—**2**, Hayasaki, I., 2.
Richthofenidæ.—**2**, Frederiks, G., 2.
Ricksmansworth (Herts).—**2**, Barrow G.
Ridge Hill (Herts).—**1**, Wooldridge, S. W.
Riebeckite.—**2**, Cantuniari, S., 3; Grill, E., 5; Schierl, A.
—— -rhyolite. *See* Rhyolite.
Rieden (Rheinland).—**1**, Halfmann, G. J.

Riedenite, Rheinland.—**2**, Brauns, R., 13.
Ries. *See* Nördlinger Ries.
Riesengebirge (Bohemia-Silesia).—**0**, Berendt, G.; Berg, G.; **2**, Berg, G., 3.
Rieserferner (Trentino).—**0**, Klebelsberg, R. v.; Meusburger, K., 1–3.
Rif (Spanish Morocco).—**1**, Marín, A.; Valle, A. del.
Rift-valleys, E. Africa. — **0**, Ball, J.; Gregory, J. W., 5; Holmes, A., 3; Parkinson, J., 2; Stigand, C. H.; **1**, Gregory, J. W., 3; Wayland, E. J., 13, 14; **2**, Gregory, J. W.
—— - ——, Persia.—**0**, Shand, S. J.
Rifts, Red Sea area.—**1**, Hume, W. F.
Rigidity, England (N.).—**1**, Marr, J. E.
Rigihochfluh (Schwyz).—**0**, Buxtorf, A.
'Rillensteine.'—**0**, Blanckenhorn, M., 2; Salomon, W.; **2**, Kumm, A.
Rimberg (Hesse-Nassau).—**1**, Lieber, H.
Ringgau (Hesse).—**1**, Kindermann, C.
Rinköbing Fjord (Denmark).—**0**, Johansen, A. C.
Ringsteadia.—**0**, Salfeld, H., 2.
Rinkite.—**1**, Zambonini, F., 2.
Rinteln (Prussia).—**1**, Naumann, E., 4, 6.
Rio de Janeiro (Brazil).—**0**, Roxo, M. G. de O.; **2**, Rimann, E., 2.
Rio Negro (Argentina).—**2**, Windhausen, A.
Rioja (Argentina).—**2**, Kuehn, F.
Ripon (Yorks).—**1**, Bisat, W. S.
Ripple-marks.—**2**, Baschin, O., 1, 2.
—— - ——, Marne.—**1**, Denizot, G.
—— - ——, Yorkshire.—**0**, Wroot, H. E., 2.
Rissian, Cantal.—**2**, Boisse de Black, Y., 2.
Rivaite.—**2**, Bowen, N. L., 2.
River-beds.—**1**, Lugeon, M., 7; **2**, Lohest, M., 3.
—— - ——, pot-holes in.—**1**, Hess von Wichdorff, H., 3.
—— -capture. Kentucky.—**1**, Jillson, W. R., 8, 27.
—— - ——, Morocco.—**2**, Savornin, J., 2.
—— - ——, Vosges.—**0**, Lory, P.
—— -gravels.—**2**, Johnston, W. A., 7.
—— - ——, Germany.—**0**, Kurtz, —; Schottler, W., 4.
—— -meanders.—**0**, Bury, H., 3; Ellis, T. S.
—— -systems, Meuse.—**1**, Levy, F.
—— - ——, Mississippi.—**1**, Deckert, E.
—— - ——, Northamptonshire.—**0** & **1**, Thompson, B.; **2**, Thompson, B., 3.
—— - ——, Rhine.—**1**, Levy, F.
—— -terraces.—**2**, Sokol, R., 3.
River-terraces, Burgundy.—**0**, Depéret, C., 3.
—— - ——, Germany.—**1**, Kurtz, E.; Naumann, E., 12; Quaas, A., 1, 4; **2**, Knuth, H.
—— - ——, Morocco.—**1**, Russo, P., 2.
Rivers.—**0**, Bury, H., 2; Clarke, F. W.; Gilbert, G. K.; Hewitt, W., 3; Welsch, J.; **1**, Houel, P.; Lehmann, O.; Lugeon, J.; **2**, Dons, C.; Ellis, T. S.
——, Alaska.—**0**, Canfield, G. H., 1, 2.
——, Angola.—**1**, Kanthack, F. E.
——, Argentina.—**0**, Kantor, M., 2.
——, Belgium.—**1** & **2**, Stevens, C.
——, Birmingham area.—**1**, Boulton, W. S.
——, British Columbia.—**1**, Camsell, C.; Schofield, S. J.
——, Buckinghamshire. — **1**, Whitaker, W., 2.
——, Clyde.—**1**, Gregory, J. W., 5.
——, Dee.—**0**, Roberts, C. H.
——, Doubs.—**2**, Buxtorf, A.
——, England (E.).—**2**, Whitaker, W., 2.
——, Essex.—**2**, Thresh, J. C.
——, Germany. — **0**, Henkel, L.; Schottler, W., 5; Schuermann, E.; **1**, Gœbel, F.; Kirchberger, M.; Kuźniar, W.; Reck, H.; **2**, Jassoy, A.; Sonntag, P.
——, Hertfordshire. — **1**, Whitaker, W., 2.
——, Highlands.—**0**, Bremner, A., 4.
——, India (N.).—**0**, Pascoe, E. H.
——, Ireland.—**2**, Fletcher, G.
——, Italy (N.).—**0**, Geisler, W.; Sacco, F., 12; **1**, Craveri, M.; **2**, Fabiani, R., 5; Feruglio, E.; Taramelli, T.
——, Kenya.—**0**, Hobley, C. W.
——, La Plata.—**1**, Cardoso, A.
——, New South Wales.—**0**, South Australia, 4.
——, New Zealand.—**0**, Adkin, G. L., 2; New Zealand, 4–6; **2**, New Zealand, 9, 16–21.
——, Peru.—**2**, García, P.; Portocarrero, J. N.
——, Poland. — **1**, Cramer, R.; Kuźniar, W.; **2**, Sonntag, P.
——, Quebec.—**1**, Peattie, R.
——, Russia (N.W.).—**1**, Homén, T.
——, S. Australia.—**0**, South Australia, 3, 4.
——, Switzerland.—**0**, Schardt, H.; **1**, Buxtorf, A., 4; Lugeon, J.
——, United States.—**0**, Brown, C. W., 2; Clark, W. B., 3; Fairchild, H. L., 9; Gilbert, G. K.; Merwin, H. E.; **1**, Greene, F. C.; **2**, Hyde, J. E.; Todd, J. E.
——, Victoria.—**0**, South Australia, 4; Victoria, 2, 3; **1**, James, A. V. G.

Rivers, W. Australia.—**1**, Talbot, H. W. B.
——, Yonne.—**1**, Hure, A., 2.
——, erosion.—**2**, Latham, E. ; Smoleński, J.
——, flow-gaugings, Alberta. — **1**, Jones, B. E. ; **2**, Grover, N. C., 4.
——, ——, Hawaii.—**0**, Grover, N. C., 7 ; **1**, Grover, N. C.
——, ——, Saskatchewan.—**1**, Jones, B. E.
——, ——, United States. — **0**, Grover, N. C., 1–6 ; Pierce, C. H., 1, 2 ; **1**, Grover, N. C., 2–8 ; Hall, B. M. ; Jones, B. E. ; McGlashan, H. D. ; **2**, Baldwin, G. C. ; Covert, C. C. ; Grover, N. C., 1–6.
——, former, Fife.—**0**, Rhodes, J. E. W.
——, ——, Germany.—**0**, Wichdorff, H. v. ; **1**, Schmidt, A.
——, ——, Hampshire basin. — **2**, Hooley, R. W.
——, ——, Kinross-shire.—**0**, Rhodes, J. E. W.
——, ——, New England.—**2**, Crosby, I. B.
——, ——, Rhône.—**1**, Lugeon, M., 8.
——, ——, Sahara.—**1**, Chudeau, R., 4.
——, ——, Switzerland.—**1**, Schardt, H., 2 ; **2**, Buxtorf, A., 3.
——, ——, Venetia.—**1**, Taramelli, T., 6.
——, Ice Age, Germany.—**0**, Kurtz,—.
——, ——, Sweden.—**1**, Frœdin, J.
——, Miocene, France (Central).—**2**, Glangeaud, P., 3.
——, mud & silt &.—**0**, Keilhack, K. ; Pierce, R. C. ; **1**, Boissier, R. ; **2**, Chatley, H., 2.
——, Pleistocene, United States.—**1**, Leverett, F. ; **2**, MacClintock, P.
——, Pliocene, Jura Mts.—**1**, Schardt, H.
——, Pre-Würmian, Haute-Savoie.—**1**, Doncieux, L.
——, profile-surveys, United States. —**0**, Herron, W. H., 1–5.
——, Quaternary, Piedmont. — **1**, Sacco, F., 4.
——, underground, France (N.).—**0**, Burwash, E. M.
——, ——, Istria.—**1**, Salmojraghi, F., 3.
——, ——, Norway.—**1**, Oxaal, J.
——. *See also* Drainage, Estuaries, *&c.*
Road-materials.—**1**, Bean, E. F. ; Boswell, P. G. H., 2 ; **2**, Boswell, P. G. H., 5 ; Hibsch, J. E.
—— - ——, Manitoba.—**1**, Clark, K. A.
—— - ——, New South Wales.—**0**, Morrison, M. ; **2**, Jones, L. J., 3.
—— - ——, United States (E.).—**0**, Goldthwait, J. W., 3 ; **1**, Jillson, W. R., 18,
Road-materials, Victoria.—**2**, Whitelaw, O. A. L.
—— - ——. *See also* Paving-stones.
Robenhausian, Seine-et-Marne. — **1**, Ameghino, F., 15.
Robertson Bay area (Antarctica).—**2**, Rastall, R. H.
Robson, Mt. area (W. Canada).—**2**, Burling, L. D., 3.
Roc de Chère (Haute-Savoie).—**1**, Moret, L.
Roccamonfina (Campania).—**0**, Panichi, U. ; Sabatini, V.
Rochefort (Puy-de-Dôme).—**1**, Glangeaud, P.
Roches moutonnées.—**0**, Kuehn, — ; **2**, Werenskiold, W., 5.
'Roches vertes,' Romania. — **0**, Cădere, D.
—— ——, Urals (S.).—**0**, Duparc, L., 4.
—— ——, Valais.—**1**, Bartholmès, F.
Rochester (N.Y.).—**0**, Fairchild, H. L., 9 ; Giles, A. W.
Rock-analyses.—**0**, Eichleiter, C. F., 1, 4 ; Hillebrand, W. F. ; Sokol, R. ; **1**, Richardson, W. A., 4 ; **2**, Richardson, W. A.
—— - ——, Dobrogea.—**2**, Cantuniari, S., 3 ; Rotman, D., 2.
—— - ——, Europe (Central).—**0**, Horváth, B. v. ; **1**, Emszt, K., 1, 2 ; Horváth, B. v., 2, 3 ; Merse von Szinye, S.
—— - ——, Germany.—**2**, Brauns, R., 13 ; Meigen, W., 2.
—— - ——, New Jersey.—**2**, Aurousseau, M.
—— - ——, New South Wales.—**2**, Andrews, E. C. ; Mingaye, J. C. H.
—— - ——, Norway.—**1**, Bugge, C. ; **2**, Foslie, S., 3 ; Goldschmidt, V. M., 6, 10.
—— - ——, Portugal.—**2**, Pereira de Sousa, F. L., 1, 2.
—— - ——, S. Australia.—**1**, Browne, W. R.
—— - ——, Subantarctica.—**2**, Tyrrell, G. W.
—— - ——, Sweden.—**2**, Lindroth, G. T. ; Sundius, N.
—— - ——, amphibole-rocks, Styria. —**2**, Heritsch, F., 7.
—— - ——, amphibolites, Romania. —**2**, Vendl, A.
—— - ——, andesites, Krakow.—**1**, Małkowski, S.
—— - ——, basalt, Hesse. — **2**, Schwantke, A.
—— - ——, dolomites.—**1**, Everman, I. ; **2**, McKay, L. R.
—— - ——, dyke rocks.—**2**, Scheumann, K. H.
—— - ——, granulite, Lower Austria. —**2**, Marchet, D.
—— - ——, igneous rocks.—**0**, Washington, H. S. ; **1**, Haase, E. ; **2**, Flores, T. ; Richardson, W. A., 2.

Rock-analyses, magmatic rocks.—**2**, Eitel, W., 4.
—— - ——, metamorphic rocks.—**1**, Eskola, P. ; Theobald, H.
—— - ——, nepheline-rocks. — **2**, Shand, S. J.
—— - ——, odinite.—**0**, Sandkuehler, B.
—— - ——, scapolite-rocks, Rheinland.—**2**, Brauns, R.
Rock-asphalt, Kentucky.—**1**, Jillson, W. R., 18.
—— -basins, Lake District.—**1**, Pearsall, W. H.
—— -bursts, mining.—**0**, Moore, E. S. ; **2**, Baumgærtel, B. ; Beger, P. J.
—— -débris, W. Australia.—**1**, Jutson, J. T., 3.
—— -fragments, pressure &.—**1**, Lugeon, M., 6.
—— -pressure.—**0**, Rogers, G. S. ; **1**, Moulton, H. G.
—— -salt.—**2**, Gross, R. ; Rinne, F., 11.
—— - ——, Ebro basin.—**1**, Born, A.
—— - ——, Great Britain.—**1**, Sherlock, R. L.
—— - ——, Nova Scotia.—**0**, Cole, L. H., 3.
—— - ——, Peru.—**1**, Simmersbach, B., 3.
—— - ——. *See also* Halite.
—— -sculpture.—**1**, Baudouin, M. ; Pijper, C. ; **2**, Petersen, T.
—— -sections, preparation of.—**0**, Hadding, A., 2 ; **2**, Schlossmacher, K., 2 ; Wuelfing, E. A.
—— -shelters.—**1**, Burkitt, M. C.
—— -tanks, Arizona. — **0**, Bryan, K.
Rockallite.—**1**, Lacroix, A., 4.
Rockeskyll (Eifel).—**2**, Hopmann, P. M.
Rockport (Mass.).—**1**, McKinstry, H. E.
Rocks.—**1**, Cole, G. A. J. ; Walker, W. T.
——, classification.—**1**, Linck, G., 4.
——, coloration.—**0**, Zimmermann, E., 2.
——, combustible.—**0**, Bærtling, R., 2 ; Herrmann, F.
——, contorted.—**1**, Gordon, C. E. ; **2**, Miller, W. J., 2.
——, creep in.—**2**, Preston, H.
——, crushing of.—**2**, Briggs, H.
——, decomposition.—**0**, Berkey, C. P. ; Clarke, F. W.
——, density.—**1**, Day, A. L. ; **2**, Washington, H. S., 9.
——, erodibility.—**1**, Ugolini, R., 2.
——, erosion.—**1**, Munthe, H., 2.
——, expansion.—**0**, Jutson, J. T., 2 ; **1**, Schulz, K. ; **2**, Schulz, K., 2.
——, fissuration & flexibility.—**1**, Fournier, E.
——, folded.—**0**, Hewett, D. F., 3.
Rocks, formation.—**1**, Harrassowitz, H. L. F., 2 ; **2**, Goodchild, J. H. ; Johnston, J.
——, fossilization in.—**1**, Deecke, W., 4.
——, frost &.—**0**, Behr, F. M., 2.
——, geographical distribution.—**2**, Niggli, P., 7.
——, granular.—**0**, Lacroix, A.
——, hardness.—**0**, Rosiwal, A.
——, helium in.—**1**, Rogers, G. S., 2.
——, kaolinized.—**2**, Cantuniari, S., 4.
——, microchemistry.—**0**, Brammall, A.
——, mineral resources &.—**0**, Roux-Brahic, J.
——, minerals of.—**1**, Kœnigsberger, J.
——, nomenclature.—**0**, Holmes, A., 14 ; **1**, Watts, W. W., 4 ; **2**, Knapp, A.
——, oldest.—**2**, Cole, G. A. J., 3.
——, permeability of.—**0**, Caffaratti, M. ; Fabiani, R.
——, petrographic methods &.—**1**, Holmes, A.
——, porosity.—**1**, Kendall, P. F., 2 ; **2**, Kendall, P. F., 4.
——, under pressure.—**0**, Joly, J.
——, rilled.—**0**, Blanckenhorn, M., 2 ; Salomon, W.
——, as road-materials.—**2**, Boswell, P. G. H., 5.
——, spiral movements in.—**1**, Wilson, T. S.
——, structure.—**0**, Lohest, M., 2 ; Merrill, G. P. ; Sander, B., 5.
——, sun's heat &.—**2**, Hibsch, J. E.
——, tectonics &.—**1**, Willis, B.
——, transported glacially.—**0**, Stark, J.
——, vesicles in.—**0**, Reis, O. M.
——, water &.—**0**, Andrimont, R. d', 2 ; **1**, Martel, E. A.
——, weathering.—**0**, Klemm, G., 10 ; **2**, Kessler, P., 4 ; Lang, R., 5.
——, weight of.—**2**, Lane, A. C., 2.
——. *See also* Acid rocks, Amphibole-rocks, Petrology, *&c.*
Rocky Mountain trench (B.C.).—**2**, Shepard, F. P., 3.
Rocky Mts.—**0**, Keyes, C. R., 5 ; Lee, W. T. ; **1**, Keyes, C. R.
—— ——, tectonics.—**0**, Mansfield, G. R., 3 ; **1**, Dake, C. L.
—— —— (Canadian). — **1**, Schofield, S. J. ; **2**, Burling, L. D. ; Shepard, F. P., 2, 4.
Rocky Point (Vancouver I.).—**0**, Cooke, H. C.
Rodentia, Miocene.—**1**, Matsumoto, H. ; **2**, O'Harra, C. C. ; Stromer, E., 5.
——, Molasse.—**2**, Schaub, S.
——, Oligocene.—**1**, Troxell, E. L., 2 ; **2**, O'Harra, C. C. ; Troxell, E. L.
——, Pleistocene.—**0**, Bate, D. M. A.; Sœrgel, W., 4 ; **2**, Boule, M. ; Stehlin, H. G., 2 ; Želízko, J. V., 2.

Rodentia, Quaternary.—**1**, Dubois, G., 1–3, 5 ; Stefano, G. de, 3.
——, Tertiary.—**0**, Stock, C., 3.
——, cave-remains.—**2**, Anthony, H. E. ; Miller, G. S., *fil* ; Thomas, O.
Roer. *See* Rur.
Rofental (Tyrol).—**0**, Hess, H., 2.
Rofna (Graubünden).—**2**, Wilhelm, O., 2.
Rohoncz. *See* Rechnitz.
Rohr (Rheinland).—**1**, Vorster, H.
'Röhrchenerze.'—**2**, Beck, R., 6.
Roma (Queensl.).—**1**, Anon., 22.
Romania.—**2**, Bertrand, L., 4 ; Enculescu, P., 5 ; Mrazec, L., 1, 2, 4, 5, 9 ; Murgoci, G., 6 ; Popescu-Voiteşti, I. ; Protescu, O., 3.
——, mineral resources. — **0**, Gwinner, A. v. ; Kirsopp, J. ; **2**, Athanasiu, S. C., 3 ; Dahms, P. ; Danaila, N. ; Mrazec, L., 3.
——, tectonics & Flysch.—**1**, Teisseyre, W. ; **2**, Mrazec, L., 10, 11.
——. *See also* Bessarabia, Carpathians, *&c.*
Rome area (Lazio).—**0**, Clerici, E., 1, 2 ; Meli, R., 8, 9 ; Verri, A. ; **1**, Clerici, E., 2 ; Papp, K. v., 2 ; Portis, A.
Romsdal (Norway).—**1**, Reusch, H.
Roncà (Venetia).—**0**, Fabiani, R., 4.
Ronda, Serranía de (Málaga).—**0**, Orueta, D. de ; **1**, Rubio, E.
Röntgenkristallography. — **1**, Hadding, A. *See also* X-rays.
Roofing-slates. *See* Slates.
Rosas (Sardinia).—**1**, Tacconi, E., 2.
Rosasite.—**1**, Perrier, C., 2.
Rose I. (Pacific).—**2**, Mayor, A. G.
Roseberry (Tasmania).—**0**, Hills, L.
Rosewood (Queensl.). — **1**, Reid, J. H.
Rosheim (Alsace).—**2**, Leidhold, C.
Rosiwal method. — **2**, Richardson W. A.
Ross & Cromarty.—**0**, Lee, G. W.
Rossena (Emilia).—**2**, Anelli, M.
Rostro-carinate industry.—**0**, Lankester, E. R., 1, 2 ; Moir, J. R., 1, 5.
'Roströhre' iron.—**1**, Naumann, E., 10.
Röt, Thuringia.—**1**, Adolf, G. ; Kalkowsky, E., 2 ; **2**, Adolf, G.
Rotliegende, Alsace.—**0**, Buecking, H.
——, Europe (Central).—**2**, Born, A., 2.
——, Germany.—**1**, Haack, W. ; Lehner, A. ; Leppla, A., 6 ; Platt, H. ; Zimmermann, E., I, 2, 4 ; **2**, Schœnfeld, G. ; Utendœrfer, A. ; Wilser, J. L.
Rottenmanner Tauern (Styria).—**0** & **1**, Kittl, E.
Rotti I. (D.E.I.).—**2**, Brouwer, H. A., 13 ; Krumbeck, L., 6.
Rottweil (Württemberg).—**2**, Fischer, H.
Rough Ridge (N.Z.).—**0**, Cotton, C. A.
Round L. area (Ont.).—**2**, Cooke, H. C.
Roussillon (France).—**0**, Mengel, O.
Roxburghshire.—**0**, McRobert, R. W.
Royal School of Mines.—**0**, Reeks, M.
Royan (Charente-Inférieure). — **1**, Douvillé, H., 8.
Rózsahegy (Slovakia).—**0**, Dornyay, B.
Rubielos de Mora (Teruel).—**1**, Gavala, J.
Ruby.—**2**, Sjœgren, H.
Rüdersdorf (Brandenburg).—**1**, Picard, E.
Rudistæ.—**0**, Pruvost, P., 2 ; **1**, Douvillé, H., 7, 22 ; **2**, Stanton, T. W. ; Trechmann, C. T., 2.
Rügen I. (Pomerania).—**0**, Jækel, O., 2, 3 ; **1**, Jækel, O. ; Keilhack, K., 5.
Ruhbank (Silesia).—**1**, Zimmermann, E., I, 1, 2.
Ruhr (Germany), coal.—**0**, Margerie, E. de ; Quiring, H., 3.
Ruhr R. area (Westphalia).—**1**, Gœbel, F. ; Græfenkæmper, W.
Ruitor (Piedmont).—**0**, Sacco, F., 13.
Rumpfite.—**2**, Redlich, K. A.
Runmarö (Sweden).—**0**, Holmquist, P. J., 2.
Rupelian, Hesse.—**0**, Steuer, A., 8.
Rupertia.—**1**, Leardi in Airaghi, Z., 3.
Rur R. (Rheinland).—**1**, Kurtz, E.
Rur valley (Rheinland).—**1**, Kirchberger, M. ; Quaas, A., 6.
Russia.—**0**, Kirsopp, J. ; **1**, Hausen, H. ; **2**, Schindewolf, O. H.
—— (Central), coal-basin.—**1**, Simmersbach, B.
—— (N.W.), lake.—**0**, Ailio, J.
——. *See also* Don R. area, Kazan, *&c.*
Rustenburg (Transvaal).—**1**, Kynaston, H.
Ruthenia (Czechoslovakia).—**0**, Pavlovski, S. ; **1**, Treitz, P., 1, 2.
Ruthenium.—**0**, Howe, J. L. ; **2**, Great Britain, 13.
Rutherglen (Lanarksh.).—**0**, Clough, C. T.
Rutile.—**0**, Merwin, H. E., 2 ; Želízko, J. V., 11 ; **1**, Homquist, P. J., 9 ; **2**, Gruehn, A., 3 ; Headden, W. P. ; Johnsen, A., 14 ; Siedel, P. ; Watson, T. L. ; Weber, L.
——, iron.—**1**, Holden, E. F.
Rutland.—**2**, Whitaker, W., 2.
Ruwenzori (Central Afr.).—**1**, Dorlodot, L. de, 2.
Ruxley (Kent).—**2**, Brown, E. E. S.
Rydzewen (E. Prussia).—**1**, Hess von Wichdorff, H., 6.

S

Saale valley (Saxony-Thuringia).—**1**, Naumann, E., 12.

Saane R. (Fribourg).—**1**, Schardt, H., 2.
Saar (Germany).—**0**, Crooks, H. F.; Margerie, E. de; **1**, Brooks, A. H.; **2**, Barrois, C., 2; Bertrand, P.
Saarau (Silesia).—**1**, Muehlen, L. v. z., 2.
Sabi valley (S. Rhod.).—**0**, Mennell, F. P., 2.
Saccammina.—**1**, Sollas, W. J.
Saccoglottis.—**2**, Berry, E. W., 10.
'Sackung.'—**2**, Buxtorf, A., 4; Wiedenmayer, K.
Safaga (Egypt).—**0**, Hume, W. F., 4.
Safiental (Graubünden).—**2**, Buxtorf, A., 4.
Sagenopteris.—**1**, Horn, M.
Sahara.—**0**, Guillaume, —; **1**, Chudeau, R., 4, 5; **2**, Kilian, C. C. W., 3.
—— (S.).—**1**, Pellegrin, J.
Sahel (Tunis).—**1**, Joleaud, L., 5.
Sahelian, N.W. Africa.—**1**, Arambourg, C.; Depéret, C., 2.
St. Agnes (Cornwall).—**0**, Fern, J. B.
St. Albans (Herts).—**2**, Williams, A. H.
St. Andreasberg (Harz).—**1**, Bode, A., 1, 2.
St. Andrews (Fife).—**0**, Balsillie, D.
St. Andrew's (Guernsey).—**1**, Chilcott, B. G.
St.-Barthélemy (Piedmont).—**0**, Sacco, F., 33.
Saint-Brieuc (Côtes-du-Nord).—**0**, Kerforne, F., 2.
St.-Cergue (Vaud).—**2**, Lagotala, H.
Saint-Cyr (Var).—**1**, Haug, E.
Saint-Elme (Var).—**1**, Marty, P.
Saint-Flour (Cantal).—**2**, Glangeaud, P., 3.
St. Gallen (Switzerland).—**0**, Heim, Arnold; **1**, Mylius, H.; **2**, Jeannet, A.
Saint-Grégoire (Ille-et-Vilaine).—**0**, Kerforne, F., 3.
St. Helena I. (S. Atlantic).—**2**, Daly, R. A.
St. Helens (Lancs).—**0**, Travis, C. B.
St. Helier (Jersey).—**0**, Lemprière, R. R.
Saint-Jean-Pied-de-Port (Basses-Pyrénées).—**2**, Viennot, P., 2.
Saint-Julien-de-Concelles (Loire-Inférieure).—**2**, Péneau, J., 3.
St. Lawrence R.—**0**, Spencer, J. W., 2.
St. Lawrence R. basin.—**0**, Grover, N. C., 3–6.
St. Lawrence valley.—**0**, Fairchild, H. L., 2; **1**, Peattie, R.
St. Leonards (Sussex).—**1**, Abbott, W. J. L.
Saint-Malo (Ille-et-Vilaine).—**0**, Dautzenberg, P., 2.
Saint-Marcel (Ardèche).—**2**, Depape, G.
St. Mark's (Cape Prov.).—**0**, Cohen, E.
St. Martin (Styria).—**2**, Ascher, F. H.
Saint-Martin-du-Tertre (Yonne).—**1**, Hure, A.
St. Mary R. (Alberta-Montana).—**1**, Jones, B. E.
Saint-Omer (Pas-de-Calais).—**1**, Dollé, L.
St. Peter (Styria).—**0**, Mohr, H.
St. Peter sandstone, Mississippi R. area.—**2**, Dake, C. L.
Saint-Pierre-de-Curtille (Savoie).—**1**, Blondet, —.
Saint-Sauves (Puy-de-Dôme).—**1**, Glangeaud, P.
Saint-Sirac (Ariège).—**2**, Dubar, G.
Sainte-Croix (Poland).—**1**, Samsonowicz, J.; **2**, Czarnocki, J.
Sainte-Menehould (Marne).—**0**, Denizot, G.
Saison R. area (Basses-Pyrénées).—**2**, Viennot, P.
Sakhalin I. (Siberia).—**2**, Krishtofovich, A. N.
Sakura-jima (Japan).—**0**, Davison, C., 2; Omori, F., 3.
Salamanquean, Argentina.—**2**, Doello-Jurado, M.
Salanfe (Valais).—**2**, Schmidt, C., 2.
'Saldame.'—**0**, Waagen, L., 2.
Salgótarján (Hungary).—**1**, Schréter, Z., 5.
Salies-du-Salat (Haute-Garonne).—**1**, Bertrand, L., 6.
Salina formation.—**2**, Newland, D. H., 2.
Saline lakes. *See* Lakes.
—— springs. *See* Springs.
—— water. *See* Water.
Salinity, oceanic.—**2**, Bertrand, G.; Visher, S. S.
——, Quaternary seas.—**1** & **2**, Goldring, W.
Salins (Jura).—**1**, Piroutet, M., 1–3.
Salite.—**2**, Beutell, A., 9.
Salles (Hautes-Pyrénées).—**1**, Lapparent, J. de.
Salmi (Finland).—**1**, Berghell, H.
Salmian, Belgium.—**0**, Anten, J., 4, 6; Asselberghs, E.; **1**, Anten, J.
Salmon R. area (B.C.).—**0**, O'Neill, J. J.; **1**, Schofield, S. J., 2.
Salonika (Greece).—**1**, Bourcart, J.
'Salpausselkä.'—**1**, Ramsay, W., 4.
Salses, Moravia.—**2**, Rzehak, A., 2.
Salt, bituminous, N.-W. Frontier Province.—**0**, Stuart, M.; **1**, Stuart, M., 4.
——, disintegration of rocks &.—**0**, Howchin, W., 8.
——, efflorescence.—**2**, Wiman, C., 2.
Salt Creek (Wyo.).—**0**, Wegemann, C. H.
Salt-deposits.—**0**, Stille, H.; **1**, Grabau, A. W.; Hœfer, H. v., 4; **2**, Fulda, E.; Rózsa, M., 3; Seidel, T., 2.
—— - ——, Alsace.—**0**, Wagner, W.
—— - ——, Canada (E.).—**0**, Hayes, A. O.

Salt-deposits, Cape Province. — **2**, Webber, H. O'K.

—— - ——, Carpathians.—**1**, Voitesti, J. P.

—— - ——, French Somaliland.—**2**, Dégoutin, M.

—— - ——, Germany.—**0**, Sauer, A., 6 ; **1**, Freyberg, B. v. ; Landgræber, W. ; May, W. ; **2**, Beyschlag, F., 9 ; Gillitzer, G. ; Lachmann, R., 3 ; Mrazec, L., 7 ; Rózsa, M., 4–6 ; Zimmermann, E., 1.

—— - ——, Holland.—**2**, Engel, C. P.

—— - ——, India.—**1**, O'Connor, P. C. S. ; Pascoe, E. H.

—— - ——, Lower California.—**2**, Wittich, E., 3.

—— - ——, Nova Scotia.—**1**, Hayes, A. O.

—— - ——, Peru.—**1**, Pfluecker, L. A.

—— - ——, Poland.—**0**, Anon., 36 ; **1**, Beyschlag, F.

—— - ——, Romania.—**2**, Athanasiu, S. C., 3.

—— - ——, S. Australia.—**1**, Jack, R. L., 6.

—— - ——, Switzerland. — **0**, Schmidt, C., 1, 2.

—— - ——, United States.—**0**, Phalen, W. C., 2 ; United States, 5, 6, 8 ; **1**, Darton, N. H., 2 ; United States, 9 ; **2**, Conrey, G. W.; United States, 11.

—— - ——, W. Australia.—**0**, Blatchford, T., 9.

—— - ——, formation & origin.—**2**, Dégoutin, M. ; Rinne, F., 5 ; Rózsa, M., 2.

—— - ——, lacustrine, Argentina.—**0**, Gez, J. W.

—— - ——. *See also* Hartsalzkainitite, Potash, *&c.*

Salt-domes, Gulf Coastal Plain.—**0**, Barton, D. C. ; Hopkins, O. B., 1, 2 ; Lucas, A. F. ; Powers, S., 2 ; **2**, Barton, D. C. ; Matteson, W. G.

—— - ——, origin.—**0**, Golyer, E. de ; **2**, Washburne, C. W.

Salt Lake formation, Idaho.—**0**, Mansfield, G. R.

Salt-marshes, Loire-Inférieure. — **2**, Ferronnière, G., 5 ; Péneau, J.

Salt Pan (Transvaal).—**1**, Du Toit, A. L., 4 ; Wagner, P. A., 3.

Salt Range (Punjab).—**1**, Pascoe, E. H.

Salt-stocks. *See* Stocks.

Saltburn (Yorks).—**1**, Lamplugh, G. W.

Salton basin (Cal.).—**2**, Brown, J. S., 2.

Saltpetre. *See* Potassium nitrate.

Salts, analyses.—**0**, Clarke, F. W.

Saluggia (Piedmont).—**0**, Sacco, F., 6.

Salvador.—**2**, Diller, J. S.

Salvan (Valais).—**0**, Oulianov, N.

Salvinia.—**0**, Florin, R.

Salzberg marl, Saxony.—**1**, Burmester, L.

Salzburg (Austria).—**0**, Fugger, E. ; Geyer, G., 5 ; **1**, Crammer, H. ; Pia, J. ; **2**, Bœhne, E. ; Lehmann, O. ; Mayr, C. ; Redlich, K. A., 2. *See also* Tauern Mts.

Salzderhelden (Hanover).—**2**, Stille, H.

Salzkammergut (Austria).—**0**, Geyer, G., 3 ; Spengler, E., 1–3.

Salzuflen (Lippe).—**1**, Mestwerdt, A., 2, 4.

Salzungen (Thuringia).—**1**, Naumann, E., 1, 5.

Sam Neua (Laos).—**2**, Dussault, L.

Samaden (Graubünden).—**0**, Cornelius, H. P.

Samar I. (Philippine Is.).—**2**, Schenck, H. G., 2.

Sambre valley (Belgium).—**1**, Stainier, X., 3.

Samland (E. Prussia).—**0**, Hess von Wichdorff, H. ; **1**, Tornquist, A.

Samme valley (Hainault).—**2**, Leriche, M., 3.

Samoa (Pacific).—**0**, Mayor, A. G. ; **1**, Chamberlin, R. T., 2 ; Thomson, J. A. ; **2**, Davis, W. M., 4. *See also* Rose I.

San Benedetto del Tronto (Marche).—**1**, Brest, E.

San Blas (Argentina).—**0**, Witte, L.

San Diego (Cal.).—**0**, Ellis, A. J., 2.

San Francisco area (Cal.).—**1**, Louderback, G. D.

San Francisco Bay.—**0**, Gilbert, G. K. ; Louderback, G. D., 3 ; Sumner, F. B.

San Joaquin valley (Cal.).—**1**, Rogers, G. S.

San Juan (Argentina).—**0**, Ducloux, E. H.

San Juan (Porto Rico).—**0**, Semmes, D. R.

San Juan Mts. (Colo.).—**0**, Atwood, W. W. ; **2**, Bastin, E. S., 2.

San Luis (Argentina).—**0**, Gez, J. W. ; Kantor, M., 1, 3.

San Luis Potosi (Mexico).—**0**, Wittich, E., 3 ; **1**, Wittich, E., 2 ; **2**, Baker, C. L. ; Kratzert, J. ; Wittich, E., 11–14.

San Luis valley (Colo.).—**2**, Headden, W. P., 2.

San Marino (Italy).—**1**, Salmojraghi, F., 6.

San Pellegrino (Lombardy).—**1**, Cacciamali, G. B.

San Quentin (Lower California).—**1**, Dall, W. H., 1, 2.

San Salvatore, Mte. (Tessin).—**1**, Mariani, E.

San Severino (Marche).—**2**, Fabiani, R., 3.

Sand-bar, former, Nova Scotia.—**2**, Churchill, F. C.

—— -calcite.—**2**, Wanless, H. R., 2.

—— -chrome, Maryland.—**0**, Singewald, J. T., *fil.*

Sand-grains, in sandstones.—**2**, Galloway, J. J.

—— -lime brick.—**0**, Parr, S. W.; United States, 5, 6, 8; **1**, United States, 9.

Sanderstead (Surrey).—**1**, Whitaker, W., 4.

Sandling Mt. (Styria).—**1**, Lehmann, O., 2.

Sands.—**0**, Boswell, P. G. H., 4; Treitz, P., 2.

——, Africa (N.).—**1**, Artini, E., 5.

——, Belgium.—**0**, Anten, J., 3, 5; **1**, Anten, J., 2; Fourmarier, P., 6; **2**, Anten, J., 1, 4.

——, Durham.—**0**, Woolacott, D.

——, Egypt.—**1**, Artini, E., 6.

——, Eritrea.—**2**, Artini, E.

——, Hertfordshire.—**0**, Gilbert, C. J.

——, Ille-et-Vilaine.—**1**, Kerforne, F., 3.

——, Italian Somaliland.—**1**, Artini, E., 7.

——, Italy.—**0**, Waagen, L., 2; **1**, Salmojraghi, F., 3, 5; Taramelli, T., 3.

——, Ontario.—**1**, Keele, J., 4; **2**, Keele, J.

——, United States.—**0**, Dake, C. L.; United States, 5, 6, 8; **1**, United States, 9; **2**, Buttgenbach, H., 2.

——, bituminous, Alberta.—**0**, Parker, G. C.; **2**, Ells, S. C.

——, blown. — **1**, Hess von Wichdorff, H., 5; Solger, F.

——, cavities in.—**2**, Wegner, T.

——, garnet-, Ceylon.—**0**, Keilhack, K., 2.

——, glass.—**0**, Wilson, G. V., 2.

——, ——, Ceylon.—**1**, Anon., 6.

——, ——, Lausitz.—**0**, Keilhack, K., 9.

——, ——, United States.—**0**, Boswell, P. G. H., 2; **1**, Richardson, C. H.

——, glauconite.—**0**, Strahan, A.; **1**, Charpiat, R., 2.

——, littoral, Brittany.—**2**, Ferronnière, G., 2.

——, ——, Mersey estuary.—**2**, Kennedy, N. W.

——, loess-like, Rhine Valley.—**1**, Quaas, A., 8.

——, mineralogy of.—**0**, Déverin, L.; **1**, Salmojraghi, F., 2.

——, moulding.—**0**, Boswell, P. G. H., 3, 5; **2**, Boswell, P. G. H., 1, 8.

——, ——, Canada (E.).—**0**, Cole, L. H.

——, ——, Sweden.—**2**, Johansson, S.

——, musical.—**0**, Carus-Wilson, C., 3.

——, oil & water &.—**1**, Mills, R. V. A., 2; **2**, Skirvin, O. W.

——, pumice-, Hesse-Nassau. — **1**, Ahlburg, J., 2.

——, quartz-, Japan.—**2**, Ishi, K.

——, as refractories.—**0**, Lamplugh, G. W., 35; Thomas, Herbert H., 2.

Sands. *See also* Dunes, Black sands, *&c.*

Sandstones.—**2**, Currie, J.; Galloway, J. J.

——, Basses-Pyrénées.—**1**, Lapparent, J. de, 2.

——, Morocco (Spanish).—**2**, Navarro, L. F.

——, S. Victoria Land.—**2**, Debenham, F., 2.

——, Swabia.—**1**, Kessler, P.

——, as building-stones.—**1**, Bownocker, J. A.; Elsden, J. V.

——, calcareous, British Columbia.—**1**, Johnston, W. A., 2.

——, dykes, Cumberland.—**2**, Gilligan, A., 2.

——, glauconitic, W. Australia.—**1**, Maitland, A. G., 4.

——, hieroglyphic, Romania. — **2**, Protescu, O., 3.

——, siliceous, French W. Africa.—**1**, Hubert, H.

——, strand-markings in, Oklahoma.—**1**, Powers, S.

——, Tertiary, Liége. — **0**, Fourmarier, P., 5.

——, ulmite in, New South Wales.—**1**, Steel, T.

——. *See also* Freestone, Old Red Sandstone, *&c.*

Sandwell (Staffs).—**2**, Kay, H.

Sangatte (Pas-de-Calais).—**2**, Dubois, G.

Sangi Is. (D.E.I.).—**2**, Brouwer, H. A., 10.

Sanidine.—**1**, Kôzu, S., 2; **2**, Brauns, R., 3; Freudenberg, W., 2.

Sansan fauna.—**0**, Depéret, C.

Sansego I. (Istria).—**1**, Taramelli, T., 3.

Santa Fé (Argentina).—**0**, Cuomo, M.; Frenguelli, J., 4; **1**, Frenguelli, J.

Santa Fé (Nev.).—**2**, Clark, C. W., 2.

Santander (Spain).—**2**, Veen, R. W. van der.

Säntis (Switzerland).—**1**, Mylius, H.; **2**, Blumer, E.

Santo Domingo (W. Indies).—**0**, Cooke, C. W., 2.

Sao Paulo (Brazil).—**0**, Holdhaus, K.

Saône-et-Loire (France).—**0**, Depéret, C., 3; Lane, A. C., 2; **1**, Lissajous, M., 2; **2**, Mayet, L.

Saponite. *See* ‘Seifige Erde.’

Sapphire.—**1**, Kunz, G. F., 2; **2**, Anon., 27; Sjœgren, H.

Sapphirine.—**2**, Cornelius, H. P.

Sapropel.—**2**, Zalessky, M. D.

Sapropelite.—**0**, Zalessky, M. D.; **1**, Reck, H.

Sarcolite.—**2**, Buddington, A. F.

Sarcopside.—**0**, Holden, E. F.

Sardinia.—**0**, Comucci, P., 2; Novarese, V.; Taricco, M.; **1**, Manasse, E., 2; Tacconi, E., 2.

Sarine R. (Fribourg).—**0**, Schardt, H.

Sark.—**1**, Bœrlage, J. F. G.

Sarmatian, Romania.—**2**, Sevastos, R., 3 ; Simionescu, I.

Sarraz, la (Vaud).—**2**, Joukowsky, E., 2.

Sarsen stones, New Zealand.—**1**, Howchin, W., 8 ; Speight, R.

—— ——, S. Australia.—**0**, Howchin, W., 8.

Sarstedt (Hanover).—**1**, Bœhm, J., 5.

Sart-lez-Spa (Liége).—**0**, Anten, J., 2.

Sart Tilman (Liége).—**0**, Fourmarier, P., 4.

Sarthe (France).—**0**, Bigot, A.

Saskatchewan.—**0**, Stansfield, J., 2 ; **1**, Alcock, F. J., 5 ; Dowling, D. B., 5 ; Jones, B. E. ; **2**, Johnston, R. A. A. ; Stansfield, J.

——, mineral resources.—**0**, Bruce, E. L. ; Dowling, D. B. ; **1**, Dowling, D. B., 2, 3 ; McInnes, W.

Sassalbo (Graubünden).—**0**, Staub, R., 4.

Sassenage (Isère).—**2**, Kilian, C. C. W., 4.

Sassina, Val (Lombardy).—**1**, Artini, E., 2.

Satakunta (Finland).—**0**, Tolvanen, V.

Satmar (Transylvania).—**1**, Grengg, R., 2.

Saturnalis.—**2**, Squinabol, S., 1, 2.

Sauerland (Germany).—**1**, Fuchs, A., 3 ; Gœbel, F., 2 ; Pæckelmann, W.

Saulieu (Côte-d'Or).—**2**, Brepson, F.

Saurierkalk, Thuringia.—**1**, Naumann, E., 8.

Saurodelphis.—**1**, Rovereto, G.

Sauropoda.—**2**, Huene, F. v., 13.

Sauropterygia.—**1**, Bogoliubov, N. N. ; **2**, Hutchinson, H. N.

——, Cretaceous.—**2**, Andrews, C. W., 3.

——, Lias.—**2**, Huene, F. v., 7.

——, Trias.—**1**, Broili, F., 3.

——. *See also* Plesiosauria.

Saussurite, Kashmir.—**0**, Wadia, D. N., 2.

Sauvagesia.—**2**, Stanton, T. W.

Save R. (Carniola).—**0**, Ampferer, O., 12.

Savoie (France).—**0**, Gorceix, C., 3 ; Kilian, W., 7 ; Pussenot, C. ; Termier, P., 10, 11 ; **1**, Blondet, — ; Combaz, P. ; Révil, J., 2 ; Termier, P., 6 ; **2**, Cluzet, J.

Saxonian folding, Germany. — **0**, Stille, H. ; **1**, Lachmann, R.

Saxony.—**0**, Kampfrath, A. ; Pietzsch, K., 3 ; **1**, Linstow, O. v., 4, 5 ; Naumann, E., 12 ; Scheumann, K. H. ; **2**, Beger, P. J., 1, 2 ; Gœllnitz, O. ; Lohrmann, E.

——, igneous & metamorphic rocks. —**0**, Pietzsch, K., 1, 2 ; **1**, Beck, R. ; Beger, P. J. ; **2**, Beger, P. J., 3 ; Bergt, W., 1–3 ; Chirvinski, P., 3 ; Doss, B., 2 ; Pietzsch, K. ; Schœnfeld, G. ; Trœger, E.

Saxany, mineral resources.—**0**, Beck, R., 2 ; **1**, Beyschlag, F., 4 ; Linstow, O. v., 6 ; Scupin, H. ; **2**, Doss, B., 3 ; Krug, H. ; Schneiderhœhn, H., 2 ; Schreiter, R., 2.

——, stratigraphy.—**0**, Werth, E. ; **1**, Burmester, L. ; **2**, Drude, O.

——. *See also* Erzgebirge.

Scalpellum.—**2**, Withers, T. H., 3, 4.

Scandinavia.—**0**, Carstens, C. W., 2 ; Holtedahl, O., 16 ; **1**, Frœdin, G., 2 ; Holtedahl, O., 4 ; Quensel, P. ; **2**, Frœdin, G., 2.

——, coastal platforms.—**0**, Ahlmann, H. W., 2 ; Hœgbom, A. G., 3.

——, Quaternary.—**0**, Halden, B., 2 ; Moscheles, J. ; **1**, Hinch, J. de W. ; **2**, Œyen, P. A., 1, 3, 5 ; Van Baren, J.

Scanfs (Engadin).—**0**, Spitz, A., 10.

Scania. *See* Skåne.

Scaphites.—**0**, Nowak, J. ; **2**, Diener, C., 4 ; Frech, F., 2, 4.

Scaphopoda.—**1**, Tesch, P., 2.

——, Carboniferous.—**2**, Morningstar, H.

——, Cretaceous.—**0**, Cossmann, A. E. M. ; **2**, Wilckens, O., 5.

——, Miocene.—**0**, Cossmann, A. E. M., 3 ; Martin, K., 2 ; **1**, Cossmann, M., 2.

——, Pliocene.—**2**, Yokoyama, M.

——, Tertiary.—**2**, Pilsbry, H. A.

——, Trias.—**2**, Jaworski, E., 4.

Scapolite.—**0**, Shannon, E. V., 13 ; Sundius, N. ; **1**, Borgstrœm, L. M. ; **2**, Brauns, R., 2 ; Shannon, E. V., 6.

—— -rocks, Rheinland.—**2**, Brauns, R., 1, 2.

Scarborough (Yorks).—**1**, Bevan, D. W.

Scarps, Great Basin.—**0**, Louderback, G. D., 4, 5. *See also* Fault-scarp.

Scarsdale (Vict.).—**0**, Baragwanath, W., 2.

Scelioninæ.—**0**, Meunier, F., 2.

Schaaken (E. Prussia).—**1**, Klautzsch, A.

Schachtberg (Harz).—**2**, Stahl, A., 3.

Schafarzikite.—**1**, Krenner, J. A.

Schafberg (Westphalia).—**1**, Kuhlmann, L.

Schaffhausen (Switzerland). — **2**, Huebscher, J. ; Niggli, P., 10 ; Schalch, F., 2.

Schafmatt (Lucerne).—**2**, Mollet, H.

'Schären.'—**0**, Rosberg, J. E.

Scheelite.—**0**, Russell, A. ; **1**, Hugi, E.

——, Sweden.—**2**, Lindroth, G. T.

——, Transvaal.—**1**, Wagner, P. A., 5.

Schela formation, Balkan area.—**2**, Murgoci, G., 9.

Schellkopf (Eifel).—**2**, Zaentini, W.

Schiefergebirge (Silesia).—**1**, Zimmermann, E., I, 5.

Schiefergebirge (Thuringia). — **2**, Drude, O.
——. *See also* Rheinische Schiefergebirge.
'Schieferkohle.' *See* Coal.
Schimberg (Lucerne).—**2**, Mollet, H.
Schio (Venetia).—**0**, Klebelsberg, R. v., 3 ; **1**, Pretto, O. de.
Schio beds, Venetia.—**2**, Oppenheim, P.
'Schistes lustrés,' W. Alps.—**0**, Termier, P., 10–12.
Schisto-calcareous system, Congo basin.—**1**, Delhaye, F., 2.
Schistosity. *See* Foliation.
Schists, Austria.—**0**, Heritsch, F., 2 ; Hinterlechner, K., 3 ; **1**, Jugovics, L. ; Kittl, E. ; Mohr, H.
——, Banffshire.—**1**, Read, H. H.
——, Devon.—**2**, Tilley, C. E., 2.
——, Finland.—**1**, Frosterus, B., 3 ; Wilkman, W. W.
——, French Indo-China.—**2**, Dussault, L. ; Jacob, C.
——, French W. Africa.—**1**, Hubert, H.
——, Germany.—**0**, Pietzsch, K., 2 ; **1**, Muegge, O. ; Theobald, H. ; Zimmermann, E., I, 2.
——, Liége.—**1**, Fourmarier, P., 10.
——, Minnesota.—**0**, Steidtmann, E.
——, Morocco.—**0**, Coëmme, S., 2.
——, Norway.—**1**, Bugge, C. ; **2**, Nicolai, G.
——, Scotland.—**2**, Frœdin, G., 2.
——, Slovakia.—**1**, Vitális, S., 2.
——, S. Victoria Land.—**2**, Smith, W. C., 2, 3.
——, Sweden.—**1**, Hœgbom, A. G. ; **2**, Frœdin, G.
——, Switzerland.—**0**, Sander, B., 5 ; **1**, Staub, R., 11.
——, Transvaal.—**1**, Hall, A. L.
——, adinole-, Harz.—**0**, Milch, L.
——, carpholite-, Harz.—**2**, Muegge, O., 10.
——, chlorite-, Silesia.—**1**, Zimmermann, E., I.
——, —— -ottrelite-, Harz. — **2**, Muegge, O., 10.
——, crystalline.—**0**, Sokol, R. ; **1**, Keyes, C. R. ; **2**, Erdmannsdœrffer, O. H., 2.
——, ——, Banat.—**1**, Schafarzik, F.
——, ——, Borneo (Dutch). — **1**, Krol, L. H.
——, ——, Congo Belge.—**1**, Grosse, E.
——, ——, Germany.—**1**, Naumann, E., 5 ; Reimer, W. ; Schlossmacher, K., 3 ; Tietze, O., 8.
——, ——, Lombardy.—**1**, Repossi, E., 3 ; **2**, Azzini, F.
——, ——, Macedonia. — **1**, Erdmannsdœrffer, O. H., 2.
——, ——, Madagascar.—**2**, Lacroix, A., 2.
——, ——, Portuguese E. Africa.—**0**, Holmes, A., 11.
Schists, crystalline, Scandinavia.—**1**, Quensel, P.
——, ——, Slovakia.—**1**, Ferenczi, S., 2.
——, ——, Sweden.—**2**, Eckermann, H. v.
——, ——, United States (N.E.).—**2**, Knopf, E. B.
——, ——, Valais.—**1**, Oulianov, N.
——, ——, manganiferous, India.—**2**, Hezner, L., 2.
——, graphite-, Norway.—**1**, Oxaal, J.
——, grauwacke-, Celebes.—**2**, Brouwer, H. A., 7.
——, greenstone, S. Rhodesia. — **0**, Maufe, H. B.
——, itabirite-, Congo Belge.—**2**, Dorlodot, L. de, 2.
——, mica-, Argentina.—**2**, Ugolini, R.
——, ——, Bavaria. — **2**, Cornelius, H. P., 7.
——, ——, Loire-Inférieure. — **2**, Péneau, J., 4.
——, ——, Lombardy.—**1**, Repossi, E., 11.
——, ——, Norway.—**1**, Carstens, C. W. ; Oxaal, J. ; Rekstad, J.
——, ——, S. Australia.—**1**, Browne, W. R.
——, ——, Sweden.—**2**, Sundius, N., 2.
——, ——, as refractory.—**2**, Boswell, P. G. H., 2.
——, ottrelite-, Harz.—**2**, Muegge, O., 10.
——, sericite-, Harz.—**2**, Muegge, O., 10.
——, sillimanite-, New York.—**2**, Miller, W. J.
——, —— - cordierite-, Lombardy.—**1**, Repossi, E., 11.
——, talc-, Uruguay.—**0**, Walther, K.
——, ——, Venetia.—**1**, Pretto, O. de.
——, tremolite-, Liguria.—**0**, Carrozza, E.
Schizodus.—**1**, Bisat, W. S., 2.
Schizoneura.—**0**, Fritel, P. H.
Schizopoda.—**2**, Broili, F., 3 ; Van Straelen, V., 7.
Schizotherium.—**2**, Borissiak, A.
Schlagenthin (Brandenburg).—**0**, Oppenheim, P., 9 ; **1**, Klautzsch, A., 5.
Schlaggenwald (Bohemia).—**0**, Beck, R., 2 ; **2**, Krusch, P., 3.
Schlaining (Styria).—**0**, Hinterlechner, K., 4 ; **1**, Chlebus, P.
Schleswig (Germany).—**0**, Wolff, W., 1, 2 ; **1**, Ernst, W. ; Wolff, W., 2.
Schleswig-Holstein (Germany). — **1**, Gagel, C., 4 ; Wahnschaffe, F. ; **2**, Reitz, H., 2 ; Wetzel, W., 4, 5. *See also* Holstein.
Schlœnbachia.—**2**, Stieler, C., 3.
Schlotheimia.—**2**, Trueman, A. E., 2.

Schmalkalden (Thuringia). — **1**, Bœhne, E.
Schmiedeberg (Saxony).—**1**, Linstow, O. v., 4.
Schneeberg (Saxony).—**0**, Beck, R., 2.
Schneeberg (Trentino).—**1**, Sander, B.
Schober (Salzburg).—**0**, Geyer, G., 5.
Schöckelkalk, Styria.—**2**, Bock, H.; Penecke, K. A.
Schöneweide (Brandenburg). — **1**, Schucht, F.
Schönfeld (Bohemia).—**2**, Krusch, P., 3.
Schönwalde (E. Prussia).—**1**, Klautzsch, A., 1–3.
Schopflocher Ried (Württemberg).—**2**, Kessler, P., 5.
Schouten Is. (D.E.I.).—**2**, Feuilletau de Bruyn, W. K. H.
Schroon L. area (N.Y.).—**0**, Miller, W. J., 2.
Schuiggui Mts. (Tunis).—**1**, Joleaud, L., 4.
Schuls (Engadin).—**0**, Spitz, A., 10.
Schürrkopf (Baden).—**0**, Klemm, G., 6.
Schwäbischer Jura (Württemberg).—**0**, Bræuhæuser, M., 2; Lœffler, K.; Pompeckj, J. F., 6.
Schwabweiler (Alsace),—**0**, Hœhne, E.
Schwarza R. (Thuringia).—**1**, Hess von Wichdorff, H., 3.
Schwarzenborn (Hesse). — **1**, Blanckenhorn, M., 4.
Schwarzerde. *See* Black earth.
Schwarzwald (Germany).—**0**, Lang, R.; Sjœgren, O.; **1**, Vendl, A.; **2**, Bubnoff, S. v.; Kalb, G., 5.
Schwirsen (Pomerania).—**1**, Schulte, L., 2.
Schwyz (Switzerland).—**0**, Buxtorf, A.; **2**, Heim, Albert, 2, 3; Jeannet A.
Scillælepas.—**0**, Withers, T. H., 2.
Scolezite.—**2**, Stoklossa, G.
Scolithia.—**0**, Kindelan, V.
Scone (N.S.W.).—**2**, Morrison, M., 8.
Scopelidæ.—**2**, Arambourg, C. 1, 2.
Scotland, Caledonian mountains.—**2**, Frœdin, G., 2.
——, coal apples.—**0**, Masterton, J.
——, mineral resources.—**0**, Cadell, H. M., 2; Campbell, R., 2; Macgregor, M., 2; **1**, Wilson, G. V.
—— (Central), Carboniferous. — **1**, Cadell, H. M.
—— (——), coalfield.—**0**, Clough, C. T.; Hinxman, L. W.
—— (——), petroleum.—**1**, Anon., 17.
—— (N.W.), glaciation.—**1**, Macrae, J. E.
—— (S.W.), antimony.—**0**, Dewey, H., 2.
—— (W.), Carboniferous.—**0**, Tyrrell, G. W., 2.

Scotland. *See also* Highlands, Stirlingshire, *&c.*
Scour, erosion.—**2**, Latham, E.
Scrobicularia - clay, France. — **1**, Welsch, J., 3.
Scyphocrinus.—**0**, Springer, F.
Sea-bottom, Bay of Biscay.—**2**, Charcot, J. B.; Ferronnière, G., 2; Gorceix, C.
—— - ——, E. Indian area. — **1**, Molengraaff, G. A. F.
—— - ——, English Channel.—**2**, Charcot, J. B., 2; Dangeard, L.; Lemoine, P.
—— - ——, off Japan.—**0**, Omori, F., 2.
—— - ——, off Orkney Is.—**0**, Flett, J. S.
—— - ——, San Francisco Bay.—**0**, Gilbert, G. K.; Sumner, F. B.
—— - ——, S. Atlantic.—**1**, Kantor M., 2; Kuehn, F.
—— - ——, Weddell Sea.—**2**, Wordie, J. M.
—— - ——, W. Indies. — **0** & **2**, Taber, S.
—— - ——. *See also* Sediments.
Sea-level, Europe (N.W.).—**0**, Saint-Jours, B.
—— - ——, changes of, British Columbia.—**2**, Johnston, W. A., 3.
—— - ——, ——, Mediterranean Sea.—**2**, Négris, P.
—— - ——, ——, Provence.—**2**, Denizot, G., 2.
—— - ——, subsidence.—**0**, Daly, R. A., 4, 6; Wright, W. B., 2.
Sea of Marmara area.—**0**, Arabu, N.; **1**, Arabu, N., 1–3; **2**, Macovei, G., 11.
Sea-walls, British Isles.—**2**, Great Britain, 1, 2.
—— -water, carbon dioxide in.—**1**, Wells, R. C.
—— - ——, chemical composition.—**2**, Bertrand, G.
—— - ——, dissolving limestones.—**1**, Howchin, W., 6.
—— - ——, radioactivity of. — **0**, Sverdrup, H. U.
—— - ——, underground water &.—**2**, Brown, J. S.
Seal R. area (Manit.).—**1**, Alcock, F. J., 4.
Seas, margins of.—**1**, Weigelt, J., 2.
——, salinity of.—**2**, Gregory, J. W., 5.
——. *See also* Oceans.
Sebou (Morocco).—**1**, Gentil, L., 5.
Sections, coal.—**2**, Lomax, J., 2. *See also* Microscope sections & Rock-sections.
Sedbergh (Yorks).—**0**, Butterfield, J. A., 1, 2.
Sedimentary petrography. *See* Sediments.
Sedimentary rocks.—**1**, Shaw, E. W.
—— ——, barium minerals in.—**0**, Greenwood, H. W., 2.

Sedimentary rocks, composition.—**0**, Clarke, F. W.

—— ——, nomenclature.—**1**, Tieje, A. J.

—— ——, separation of constituents. —**2**, Boswell, P. G. H., 7.

—— ——, weight of.—**2**, Lane, A. C., 2.

Sedimentation.—**1**, Vaughan, T. W., 2 ; **2**, Boswell, P. G. H., 6.

——, Arizona.—**2**, Bryan, K., 2.

——, Humber R.—**1**, Sheppard, T., 6 ; **2**, Sheppard, T., 2, 3.

——, Mersey R.—**0**, Field, A. M. ; **1**, Mersey River Conservancy ; **2**, Mersey River Conservancy ; Walker, W. T.

——, Württemberg.—**0**, Pompeckj, J. F., 6.

——, coastal, British Isles.—**2**, Great Britain, 1, 2.

——, coasts &.—**1**, Weigelt, J., 2.

——, deltaic, British Columbia.—**2**, Johnston, W. A.

——, diagenesis in.—**1**, Schuchert, C., 2.

——, dislocation &.—**2**, Nowak, E., 5.

——, geological time &.—**1**, Udden, J. A.

——, lacustrine, Alberta.—**2**, Johnston, W. A., 6.

——, ——, Lake District.—**1**, Pearsall, W. H.

——, marine.—**2**, Wepfer, E., 5.

——, palæogeography &.—**0**, Dacqué, E.

——. *See also* Deposition *&* 'Igneous sedimentation.'

Sedimentation cycles, Eocene.—**1**, Stamp, L. D., 6 ; **2**, Stamp, L. D.

Sediments.—**1**, Philippi, E. ; Shaw, E. W. ; **2**, Case, E. C. ; Lundqvist, G.

——, analyses.—**0**, Sokol, R. ; Wild, L. J. ; **1**, Merwin, H. E., 2.

——, arenaceous.—**0**, Baker, H. A., 2 ; Déverin, L.

——, calcareous.—**2**, Reis, O. M.

——, clastic.—**2**, Wentworth, C. K., 2.

——, deep-sea.—**1**, Andrée, K.

——, deltaic, British Columbia.—**2**, Johnston, W. A., 4.

——, fluvial, Germany (S.W.).—**0**, Schuermann, E.

——, freshwater.—**1**, Naumann, E., 9.

——, marine.—**2**, Berz, K. C.

——, petrography of, England (W.). —**2**, Boswell, P. G. H., 9 ; Milner, H. B., 2.

——, ——, text-book.—**2**, Milner, H. B.

——, petroliferous.—**0**, Grabau, A. W., 4.

——, radioactive.—**2**, Cluzet, J. ; Weissenberger, G.

——, in rivers, Peru.—**2**, Portocarrero, J. N.

Sediments, sea-bottom.—**0**, Andrée, K., 1, 2 ; **1**, Andrée, K., 2 ; **2**, Andrée, K., 2 ; Thoulet, J., 3.

——, ——, East Indian area.—**1**, Molengraaff, G. A. F.

——, ——, Gulf of Lions.—**2**, Thoulet, J.

——, ——, N. Atlantic.—**2**, Thoulet, J., 2.

——, ——, San Francisco Bay.—**0**, Louderback, G. D., 3.

——. *See also* Cave-sediments, Muds, *&c.*

Seeds, fossil, Mesozoic.—**0**, Grandori, L.

——, ——, Permo-Carboniferous.— **1**, Walkom, A. B.

——, ——, Pliocene.—**0**, Reid, E. M., 1, 2 ; **1**, Reid, E. M.

Seetaler Alps (Styria).—**2**, Heritsch, F., 7.

Segeberg (Holstein).—**0**, Gagel, C., 3.

Segovia (Spain).—**1**, Bosch, J. M. del.

Segregations, granitic.—**1**, Dresser, J. A. ; **2**, Lane, A. C.

'Seifige Erde,' Transylvania. — **1**, Grengg, R., 2.

Seine-et-Marne (France). — **1**, Ameghino, F., 15–19 ; Charpiat, R.

Seine-et-Oise (France).—**0**, Fritel, P. H., 3 ; **2**, Dollfus, G. F., 3 ; Lemoine, P., 2.

Seine-Inférieure (France).—**0**, Dollfus, G. F., 6 ; Stevens, C.

Seine valley (France).—**1**, Chaput, E., 2.

Seismic trajectories.—**0**, Egerváry, E. v.

—— waves.—**0**, Knott, C. G. ; **1**, Klotz, O. ; Mintrop, L. ; Oddone, E.

—— ——, propagation of. — **1**, Agamennone, G., 3 ; Cavasino, A., 3 ; **2**, Knott, C. G. ; Tams, E., 2.

Seismogram.—**0**, Hogben, G.

Seismographs.—**1**, Kolderup, H. ; Oddone, E., 4.

Seismology.—**0**, Egerváry, E. v. ; **1**, Martinelli, G. ; Reid, H. F. ; **2**, British Association Committee, 1, 5, 8 ; Walker, G. W.

——, California.—**2**, Carnegie Institution.

——, Pyrenees.—**1**, Mengel, O.

——, bibliography.—**1**, Montessus de Ballore, F. de.

——, engineering &. — **1**, Oddone, E.

——, founders of.—**1**, Davison, C., 1–3.

——, text-book.—**2**, Davison, C.

Seismometry.—**1**, Agamennone, G., 2, 4.

Sekukuniland (Transvaal).—**2**, Shand, S. J.

Selachii.—**0**, Principi, P.

Seladonite.—**1**, Braake, A. L. ter.

Selangor (F.M.S.).—**2**, Willbourn, E. S.

Selbergite, Rheinland.—**2**, Brauns, R., 13.
Selenariadæ.—**1**, Waters, A. W.
Selenite.—**1**, Stone, R. W.
Selenium.—**2**, Beutell, A., 4.
Selketal (Harz).—**1**, Denckmann, A., 2.
Sellosaurus.—**2**, Huene, F. v., 3.
Selsey Bill (Sussex).—**1**, Lankester, E. R., 2.
Selwyn (Queensl.).—**1**, Anon., 23.
Sĕmeroe volc. (Java).—**2**, Kemmerling, G. L. L., 3.
Semiopal.—**2**, Sigmund, A.
Semriach (Styria).—**2**, Bock, H.
SENCKENBERGISCH MUSEUM. *See* Museums.
Senegal (Fr. W. Afr.).—**0**, Hubert, H.; **1**, Douvillé, H., 20. *See also* Upper Senegal & Niger.
Senne valley (Belgium).—**1**, Leriche, M.
Sennette valley (Brabant).—**1**, Asselberghs, E., 3; Leriche, M., 3.
Senonian, Belgium.—**1**, Renier, A.
——, Bornholm.—**2**, Ravn, J. P. J.
——, Bulgaria.—**2**, Niculescu, C.
——, France.—**0**, Lutaud, L.; **1**, Briquet, A., 3; Lory, P., 1, 2.
——, Germany.—**0**, Bœhm, J., 4; **1**, Bœhm, J., 3, 5, 6; Schrœder, H., 2.
——, Istria.—**1**, Winkler, A.
——, Wallachia. — **2**, Popescu-Voitesti, I., 7.
Sens (Yonne).—**0**, Hure, A., 2.
Sepioidea.—**2**, Prell, H.
——, Eocene.—**1**, Brunati, R., 3; **2**, Newton, R. B.
——, Lias.—**1**, Crick, G. C., 2.
——, Miocene.—**2**, Berry, E. W., 9.
Sepiolite.—**2**, Tućan, F.
Septaria.—**2**, Wetzel, W., 4.
Septarian clay, Alsace.—**0**, Hœhne, E.
Sequoia.—**1**, Jeffrey, E. C.; **2**, Chandler, M. E. J., 1, 2.
Seraing (Liége).—**0**, Humblet, E., 2; **1**, Fourmarier, P., 7.
Seran I. (Moluccas).—**2**, Fischer, P. J.
Serbia.—**0**, Jekelius, E.; Nopcsa, F., 2; Szontagh, T. v., 1, 2; Timkó, E.; Zsigmondy, A.; **1**, Cvijić, J., 1–3; Welter, O. A., 4.
——, mineral resources.—**0**, Dœlter, C.; **1**, Rainer, L. St.; **2**, Berg, G., 6; Dœlter, C., 3; Hammer, W.; Huetter, C.; Pietzsch, O.
Sère (Hautes-Pyrénées).—**1**, Lapparent, J. de.
Serengeti (Tanganyika).—**1**, Branca, W.
Seriana, Val (Lombardy).—**1**, Artini, E., 3.
Sericite.—**0**, Hackl, O., 5.
—— -gneiss. *See* Gneiss.
—— -schists. *See* Schists.
Sermata I. (D.E.I.).—**2**, Brouwer, H. A., 12.
Serpentine, Finland.—**1**, Frosterus, B., 3.
——, Germany.—**2**, Bergt, W., 3; Beutell, A., 9; Fromme, J., 3.
——, Italy (N.).—**1**, Repossi, E., 11; **2**, Brusoni, A., 2; Grill, E., 3.
——, Porto Rico.—**0**, Fettke, C. R.
——, Somerset.—**0**, Reynolds, S. H., 2.
——, Styria.—**2**, Stiny, J., 2.
——, Transvaal.—**2**, Hall, A. L., 3.
——, origin.—**2**, Mrazec, L., 8; Murgoci, G., 6.
Serpont (Luxembourg).—**1**, Stainier, X., 4; **2**, Fourmarier, P., 2.
Serpula-beds, France-Switzerland.—**1**, Lory, P.
Serpuline ‘atolls,’ S. Australia.—**2**, Howchin, W., 2.
Serpulites.—**0**, Price, W. A.
Serra de Monchique. *See* Monchique.
Serranía de Ronda. *See* Ronda.
Serratocerithium.—**0**, Charpiat, R.
Serre-Ponçon (Hautes-Alpes). — **1**, Kilian, W., 7.
Sestri Ponente (Liguria).—**0**, Repossi, E.
Sétif (Algeria).—**1**, Savornin, J.
Sette Comuni (Venetia).—**2**, Rodighiero, A.
Settle (Yorks).—**2**, Garwood, E. J., 2.
Séverac (Loire-Inférieure).—**2**, Kerforne, F. J., 4.
Seward Penin. (Alaska).—**0**, Mertie, J. B., *fil*, 3, 4.
Seybouse R. area (Algeria).—**1**, Blayac, J.
Seymour (S. Austr.).—**1**, Winton, L. J., 4.
Shadwan I. (Egypt).—**2**, Mrazec, L., 12.
Shales.—**0**, Rogers, G. S., 2; Winchester, D. E., 2; **1**, Brammall, A.
——, Devon.—**0**, Worth, R. H.
——, Jersey.—**1**, Plymen, G. H., 2.
——, Minnesota.—**0**, Grout, F. F., 3.
——, Ontario.—**0**, Keele, J.; **1**, Keele, J., 2.
——, bituminous, Esthonia.—**2**, Anthoine, R., 4.
——, ——, Lombardy.—**1**, Airaghi, C., 8, 11; Repossi, E., 7.
——, ——, Spain.—**1**, Gavala, J.
——, concretions in.—**1** & **2**, Tarr, W. A.
——, limestone-, Derbyshire. — **1**, Garnett, C. S.
——. *See also* Black shales, Kuckersite, *&c.*
Shales-with-Beef, Dorset.—**2**, Lang, W. D., 2.
Shan States (Burma).—**1**, Buckman, S. S.; Jones, H. C., 2, 3. *See also* Northern Shan States *&* Southern Shan States.
Shanghai (China).—**2**, Chatley, H.
Shantung (China).—**1**, Horn, —.
Shearing, jointing &.—**1**, Bucher, W. H.

Sheep R. area (Alberta).—**1**, Slipper, S. E.
Shell-beds, Iceland.—**1**, Bárdarson, G. G.
—— - ——, Sweden.—**2**, Halden, B. E.
—— - ——, Yorkshire.—**2**, Crofts, W. H.
—— -mound, Hebrides.—**0**, Bishop, A. H.
—— -sands, Tortugas.—**0**, Field, R. M.
Shenley limestone.—**2**, Hawkins, H. L., 2.,
Sherbornina.—**2**, Chapman, F., 10.
Sherburne sandstone, New York.—**0**, Grabau, A. W., 8.
Sherlock (S. Austr.).—**1**, Winton, L. J., 4.
Shetland Is.—**1**, Flett, J. S.
'Shield' volcanoes. *See* Volcanoes.
Shinano (Japan).—**2**, Omori, F., 4.
Shingle, Dorset.—**0**, Prior, E. S.
Shipton Moyne (Glos).—**0**, Richardson, L.; **2**, Richardson, L., 2.
Shōbara (Japan).—**2**, Ogura, T.
Shonkonite, Portugal.—**2**, Pereira de Sousa, F. L.
Shooter's Hill (Kent).—**0**, Leach, A. L., 2.
Shore-lines, Nova Scotia.—**2**, Churchill, F. C.
—— - ——, Molasse, Württemberg.—**2**, Lutzeier, H.
—— - ——, oil pools &.—**0**, Jones, W. F.; Lahee, F. H., 2.
Shotts, Tunis.—**1**, Négris, P., 2.
Shropshire.—**0**, Cobbold, E. S.; **1**, Cobbold, E. S.; Nicholson, E. D.; Stamp, L. D.; **2**, Hall, T. C. F.; Pocock, R. W.; Smith, B., 2, 3.
Siam.—**2**, Morgenthaler, H.
Siberia, ore-deposits.—**2**, Goudkoff, P. P., 5.
—— (E.).—**2**, Russian Far East.
—— (——), mineral resources.—**0**, Polevoi, P.; **2**, Ahnert, E. E.
——. *See also* Maritime Province, Tomsk, *&c.*
Sicily.—**1**, Lóczy, L. v.; Papp, K. v., 2; Scalia, S.; **2**, Cortese, E., 2; Fucini, A.; Schultze, E.; Wepfer, E., 4. *See also* Etna.
Sicista.—**2**, Stehlin, H. G., 2.
Siderite.—**0**, Cayeux, L., 3; Wyckoff, R. W. G.
——, Peru.—**1**, Alvarado, A.
——, Thuringia.—**2**, Haf, H.
Siderites.—**0**, Prior, G. T.
Siderolites.—**0**, Prior, G. T.
Siebengebirge (Rheinland).—**1**, Hœpfner, A.
Sieg R. (Rheinland).—**2**, Knuth, H.
Sieg R. area (Rheinland). — **2**, Richter, M.
Siegenian, Belgium.—**1**, Maillieux, E., 2; **2**, Asselberghs, E., 6.
——, Meadfoot beds &.—**1**, Asselberghs, E., 8; Hamling, J. G.
Siegerland (Germany).—**1**, Denckmann, A., 1, 3; **2**, Breddin, H.
Sierra de Famatina. *See* Famatina.
Sierra Leone.—**0**, Dixey, F., 1–3; **1**, Dixey, F.; **2**, Dixey, F., 1, 2, 4, 5.
—— ——, geological survey. — **1**, Sierra Leone; **2**, Sierra Leone, 1, 2.
Sierra Nevada (Cal.).—**0**, Buwalda, J. P.; Gilbert, G. K.; Knopf, A., 4.
Sierra Nevada (Spain).—**2**, Carandell, J.
Sieve valley (Tuscany).—**1**, Feruglio, E.
Signal Mountain (Lower California.)—**2**, Merrill, G. P., 6.
Sikkim (India).—**0**, Gregory, J. W., 2.
Silesia.—**0**, Kuehn, —; **1**, Dittrich, G.; Kuźniar, W.; Vogel, H., 2; **2**, Beutell, A., 9; Jentzsch, A., 2; Muehlen, L. v. z., 3.
——, geology.—**1**, Barsch, O., 3; Berg, G., 2–4; Finckh, L., 2; Guerich, G.; Kuehn, B., 2; Tietze, O., 2; Zimmermann, E., 1, 2, 4–6; **2**, Stauffacher, J., 1, 2.
——, glaciation.—**0**, Berendt, G.; Berg, G.; **1**, Keilhack, K., 6; Tietze, O., 5.
——, igneous & metamorphic rocks.—**0**, Michael, R., 3; **1**, Berg, G.; Finckh, L., 1, 3; Muehlen, L. v. z., 2; Reimer, W.; Swoboda, —; Tietze, O., 8.
——, Mesozoic.—**1**, Assmann, P.; Jentzsch, A., 6; Kuehn, B.; Michael, R., 1, 2.
——, mineral resources.—**0**, Kriger, —; Petrascheck, W., 6; **1**, Assmann, P., 2; Friedensburg, F.; **2**, Berg, G., 9; Beutell, A., 10; Beyschlag, F., 4; Muehlen, L. v. z., 2; Quiring, H.
——, Palæozoic.—**0**, Scupin, H.; **1**, Guerich, G., 2; Haack, W.; Quitzow, W.; Scupin, H., 3; Zimmermann, E., 1.
——, Quaternary.—**0**, Gœtzinger, G.; **1**, Behr, J.; Tietze, O., 4, 9; **2**, Frech, F.
——, stratigraphy.—**0**, Michael, R., 2; **1**, Kræusel, R., 1–3; Tietze, O., 1, 7.
——. *See also* Riesengebirge.
Silesia (Czechoslovakian).—**0**, Gœtzinger, G., 1, 2; **1**, Hœfer, H. v., 2; **2**, Hœfer, H.; Kettner, R., 2; Kretschmer, F., 2–4; Petrascheck, W.
Silexite, New York.—**0**, Miller, W. J., 3.
Silica.—**1**, Eyles, V. A.; **2**, Bœke, H. E., 5; Rinne, F., 2; Washburn, E. W.
——, British Museum (N.H.).—**0**, Prior, G. T., 2.
——, Canada (E.).—**0**, Cole, L. H.

Silica, United States.—**0**, United States, 5, 6, 8.
——, refractories.—**0**, Scott, A.
——, spherulitic.—**1**, Randoin, —.
——. *See also* Flint, Quartz, *&c.*
Silica-brick.—**0**, Thomas, Herbert, H., 2; United States, 8; **1**, Holmquist, P. J., 2; **2**, Scott, A., 1, 2.
—— -rock, Great Britain.—**0**, Lamplugh, G. W., 35; Thomas, Herbert H., 2.
—— -saturation, igneous rocks.—**0**, Thomson, J. A., 4.
Silicate-melts.—**1**, Bowen, N. L.; **2**, Bœke, H. E.
—— -rocks.—**0**, Hillebrand, W. F.
—— - ——, metasomatism in.—**1**, Goldschmidt, V. M.; **2**, Goldschmidt, V. M., 12, 13.
—— - ——. *See also* Calc-silicate-rocks *&* Lime-silicate-rocks.
Silicates, alumina.—**1**, Gans, R.; Schneiderhœhn, H.; **2**, Granger, P., 2.
——, analyses.—**1**, Jakob, J.; **2**, Gossner, B.; Tschermak, G., 2.
——, barium.—**2**, Eskola, P.
——, iron.—**0**, Hackl, O., 7; **2**, Kretschmer, F., 4.
——, nickel.—**2**, Dittler, E., 5.
——, soils &.—**1**, Gans, R., 2.
——, Sonstadt's solution &.—**2**, Walker, T. L.
——, strontium.—**2**, Eskola, P.
——, synthetic.—**1**, Kœnigsberger, J., 2.
——. *See also* Hydrosilicates, Sulphide-silicate-melts, *&c.*
Silicification, talc-schists.—**0**, Walther, K.
Silicified wood. *See* Wood.
Silicispongiæ.—**0** & **1**, Stefani, C. de; **2**, Stefani, C. de, 2.
Sillimanite.—**0**, Shannon, E. V., 12; Spencer, L. J., 2; **2**, Anten, J.; Lacroix, A., 3; Shannon, E. V., 5. *See also* Fibrolite.
—— - schists. *See* Schists.
Sills, Devon.—**1**, Shannon, W. G. St. J.; **2**, Shannon, W. G. St. J., 2.
——, Edinburgh.—**0**, Allan, R.
——, Montana.—**2**, Kemp, J. F., 7.
Silphidæ.—**2**, Jeannel, R.
Silt.—**2**, Chatley, H., 2.
——, Euphrates R.—**0**, Stevens, H.
——, Fenland.—**0**, Hardy, F.
——, Valais.—**1**, Boissier, R.
——, in reservoir lakes.—**1**, Anon., 26.
Silurian.—**1**, Jones, O. T.
——, Algeria.—**2**, Ehrmann, F., 2.
——, Anglesey.—**0**, Greenly, E.
——, Belgium.—**0**, Fourmarier, P., 12; **1**, Fourmarier, P., 10; Stainier, X., 6; **2**, Salée, A. ;
——, Bohemia.—**0**, Nowak, E.; Woldřich, J., 2; **2**, Kodym, O. Perner, J., 2, 3; Petrascheck, W., 3.
Silurian, Bristol area.—**1**, Reynolds, S. H.
——, British Columbia.—**2**, Shepard, F. P.
——, Cardiff area.—**0**, Cox, A. H., 1, 2.
——, Denbighshire.—**0**, Wills, L. J., 1, 2; **1**, Wills, L. J., 2; **2**, Wills, L. J.
——, Europe.—**0**, Grabau, A. W., 9.
——, France (N.W.).—**0**, Stouvenot, A.; **1**, Couffon, O.; Milon, Y.; **2**, Kerforne, F. J., 3.
——, French Indo-China.—**0**, Mansuy, H., 8; **2**, Mansuy, H., 12.
——, Germany.—**0**, Steuer, A., 4, 6; **1**, Ahlburg, J., 4; Denckmann, A., 4.
——, Gloucestershire.—**1**, Gardiner, C. I., 1, 2.
——, Gotland.—**1** & **2**, Hede, J. E.
——, Greenland.—**1** & **2**, Koch, L.
——, Merioneth.—**2**, Wills, L. J.
——, N.-W. Territories.—**1**, Hume, G. S.; Kindle, E. M., 4.
——, Norway.—**2**, Kiær, J., 6, 7.
——, Pembrokeshire.—**1**, Dixon, E. E. L.
——, Quebec.—**2**, Twenhofel, W. H.
——, Queensland.—**0**, Dunstan, B.
——, Shropshire.—**1**, Stamp, L. D.
——, Spain.—**1**, Pérez-Cossio, L.; **2**, Sampelayo, P. H.
——, Styria.—**1**, Heritsch, F., 3.
——, United States.—**0**, Butts, C.; Fœrste, A. F., 7; Grabau, A. W., 9; Hills, T. M.; Shaw, E. W., 5; **2**, Jillson, W. R., 7; St. Clair, S., 2.
——, Victoria.—**1**, Junner, N. R.; **2**, Chapman, F., 7.
——, Wales (N.).—**2**, Elles, G. L., 3.
——, Westmorland.—**1**, Butterfield, J. A.
——, Worcestershire.—**1**, King, W. W.
——. *See also* Cambro-Silurian, Downtonian, *&c.*
Silurian-Devonian boundary.—**0**, Stamp, L. D.; **1**, Stamp, L. D., 3; **2**, Leriche, M., 6; Stamp, L. D., 4.
Siluridæ.—**0**, Priem, F.; **2**, Peyer, B.
Siluro-Cambrian, Belgium.—**1**, Fourmarier, P. *See also* Cambro-Silurian.
Silver.—**0**, Emmons, W. H.; **1**, Schlossmacher, K., 2; **2**, Beutell, A., 4; Braly, A.; Hills, R. C., 2; Schultze, E., 4.
——, Alaska.—**0**, Bateman, A. M., 2; United States, 4, 5, 8; **1**, Chapin, T., 2; United States, 5, 8; **2**, United States, 10.
——, Alps (E.).—**2**, Canaval, R.
——, Bolivia.—**0**, Davy, W. M.; **1**, Singewald, J. T., *fil.*
——, British Columbia.—**0**, Bancroft, M. F.; Camsell, C., 2; **1**, Cairnes, C. E.; Schofield, S. J., 2; **2**, Dolmage, V.; Hanson, G.

Silver, Canada.—**0**, Canada, 2 ; **1**, Canada, 6.
——, Central America.—**0**, Lindgren, W., 2.
——, England (S.W.).—**1**, Dewey, H.
——, Germany.—**2**, Krusch, P., 5 ; Lang, R., 6 ; Stauffacher, J., 1, 2.
——, Mexico.—**2**, Flores, T. ; Winchell, H. V.
——, New South Wales.—**0**, Morrison, M., 2 ; **2**, Andrews, E. C. ; Jones, L. J.
——, N. America.—**0**, Lindgren, W., 2.
——, Norway.—**0** & **1**, Bugge, C.
——, Ontario.—**0**, Coleman, A. P., 3 ; Whitehead, W. L. ; **2**, Bastin, E. S., 3 ; Bell, J. M. ; Burrows, A. G. ; Whitman, A. R., 2.
——, Queensland.—**0**, Jensen, H. I., 1, 2 ; **2**, Ball, L. C., 3.
——, S. America.—**0**, Lindgren, W., 2.
——, S. Australia.—**1**, Jack, R. L., 3 ; Ward, L. K., 4.
——, Trentino.—**2**, Canaval, R., 2.
——, United States.—**0**, Bastin, E. S. ; Butler, B. S. ; Knopf, A., 3 ; United States, 4–6, 8 ; **1**, Ferguson, H. G. ; Knopf, A. ; Scott, D. B. ; Umpleby, J. B. ; United States, 1, 8 ; **2**, Bastin, E. S., 1–3 ; Clark, C. W., 2 ; Hurst, M. E. ; Knopf, A., 1, 2 ; Shannon, E. V., 13 ; United States, 8, 10, 12.
——, Victoria.—**0**, Kenny, J. P. L., 1, 2, 7.
——, Yukon.—**0** & **1**, Cockfield, W. E., 2 ; **2**, Cockfield, W. E.
Silver iodide.—**2**, Aminov, G., 2.
—— sulphide.—**2**, Beutell, A., 4.
Silvretta Mts. (Graubünden).—**1**, Arbenz, P. ; **2**, Arbenz, P., 3.
Simiidæ.—**1**, Sera, G. L.
Simla (Punjab).—**0**, Vredenburg, E. W., 8.
Simmental (Berne).—**1**, Lugeon, M., 2 ; Rabowski, F.
Simondium (Cape Prov.).—**1**, Prior, G. T., 2.
Simplon tunnel (Piedmont-Valais).—**0**, Gonsalves, M.
Simplorbites.—**2**, Douvillé, H., 6.
Sinai (Egypt).—**0**, Hume, W. F., 1–3 ; **1**, Hume, W. F., 6 ; Kober, L. ; Milner, H. B., 4 ; Range, P., 2 ; **2**, Moon, F. W. ; Mrazec, L., 13; Schuermann, H. M. E.
—— (——), stratigraphy.—**1**, Douvillé, H., 3 ; Hume, W. F., 7; **2**, Douvillé, H., 2.
—— (——). *See also* Suez area.
Sinaloa (Mexico).—**1**, Silva, L. de ; **2**, Eichler, A.
Singhbhum (Bihar & Orissa).—**2**, Jones, H. C.
Sink-holes. *See* Swallow-holes.
Sinter, siliceous, Devon.—**0**, Edge, A B. *See also* Calc-sinter.
Siphoneæ.—**0**, Constantin, J.
Siphoneæ verticillatæ.—**0**, Morellet, L., 1, 3 ; **1**, Baretti, A. ; **2**, Fossa-Mancini, E.
Sipylite.—**0**, Tipper, G. H., 2.
Sirenia.—**2**, Stromer, E., 4 ; Woodward, A. S., 3.
Sismonda, A., letters to.—**2**, Roccati, A.
Sisteron (Basses-Alpes).—**0**, Blanchard, R.
Siwalik series, India (N.).—**0**, Pilgrim, G. E.
Sixtymile R. area (Yukon).—**1**, Cockfield, W. E.
Skåne (Sweden).—**0**, Trœdsson, G. ; Wiman, C., 3 ; **1**, Anon., 13 ; Nielson, K. B., 3 ; **2**, Kurck, C. ; Sundelin, U., 2.
Skarn, Sweden.—**2**, Lindroth, G. T.
Skead (Ontario).—**2**, Burrows, A. G., 2.
Skutterudite.—**1**, Walker, T. L., 2.
Skye (Scotland).—**0**, Lee, G. W. ; **2**, King, W. W. ; Spath, L. F., 3.
Slag, coal burnt *in situ.*—**0**, Rogers, G. S., 2.
Slate-greywacke formation, S. Victoria Land.—**2**, Rastall, R. H.
Slates.—**1**, Brammall, A. ; Jones, O. T., 2.
——, Luxembourg. — **0**, Anten, J., 4.
——, S. Australia.—**0**, Winton, L. J.
——, United States. — **0**, United States, 5, 6, 8.
——, Victoria.—**2**, Keble, R. A., 3.
——, Wales (N.).—**1**, Hobson, W. D.
——, W. Australia.—**0**, Blatchford, T., 5, 10.
——, potash.—**0**, Maynard, T. P.
——, roofing-, Switzerland.—**0**, Niggli, P.
——. *See also* Bird's-eye slates & Clay-slates.
Slavonia (Yugoslavia).—**0**, Ballenegger, R., 2 ; Koch, F. ; **1**, Anon ; Horusitzky, H., 2 ; Horváth, P v. ; Treitz, P., 2.
Sleaford Bay (S. Austr.).—**1**, Clark, T. H., 2 ; Tilley, C. E., 4.
Slocan (B.C.).—**0**, Bancroft, M. I
Slonta limestones, Cyrenaica.—**0**, Fabiani, R., 8.
Slough (Bucks).—**0**, Booth, W. H.
Slovakia.—**0**, Kadić, O., 2 ; Pia, J. v., 2 ; Toborffy, Z. v. ; Toula, F., 3 ; **1**, Lóczy, L. v., 3 ; Schréter, Z., 2.
——, geology. — **0**, Dornyay, B.; Ferenczi, S. ; Kormos, T. ; Kulcsár, K. ; Toborffy, G. v. ; Vigh, G. ; **1**, Ferenczi, S., 2 ; Kulcsár, K., 2; Lóczy, L. v., 2 ; Lóczy, L. v., *fil*, 2, 3 ; Posewitz, T. ; Roth von Telegd, K., 2 ; Toborffy, G. v. ; Vigh, J., 2, 3.
——, maps.—**1**, Pitter, T., 1, 2.

Slovakia, mineral resources. — **1**, Anon. ; Vitális, S. ; **2**, Kettner, R. ; Krusch, P., 2 ; Lachmann, R.
——, soils.—**0**, Ballenegger, R. ; **1**, Ballenegger, R. ; Horusitzky, H. ; László, G. v. ; Timkó, I. ; Treitz, P., 1, 2.
——, stratigraphy. — **0**, Vogl, V. ; **1**, Ferenczi, S. ; Komos, T., 5 ; Kulcsár, K., 3 ; Posewitz, T., 2 ; Rozlozsnik, P., 2, 4 ; Toborffy, G. v., 2 ; Vitális, S., 2 ; **2**, Dornyay, B. ; Kettner, R., 6 ; Vitásek, F.
——. *See also* Tatra Mts.
Småland (Sweden).—**0**, Sundelin, A. ; **1**, Halden, B. E.
Smälingen, L. area (Sweden).—**1**, Magnusson, N. H.
Smaltite.—**1**, Schlossmacher, K., 2 ; **2**, Beutell, A., 2, 3, 11.
Smeaton (Vict.). — **0**, Baragwanath, W., 3.
Smeystersia.—**2**, Fraipont, C.
Smithsonite.—**0**, Loughlin, G. F. ; Watson, T. L., 2.
Smoky quartz. *See* Quartz.
Snake R. basin (U.S.A.).—**0**, Grover, N. C., 2–4 ; **2**, Baldwin, G. C.
Snow, soils &.—**1**, Treitz, P., 2.
—— -line.—**0**, Holmsen, G., 3 ; Paschinger, V.
Snowdon (Carnarvonsh.).—**0**, Davis, W. M., 5 ; Gregory, J. W., 3.
Soapstone, Canada.—**1** & **2**, Spence, H. S., 2.
——, United States. — **1**, United States, 4, 9 ; **2**, United States, 11, 13.
——. *See also* Steatite & Talc.
Sobralite.—**2**, Sobral, J. M.
SOCIETY OF ECONOMIC GEOLOGISTS.—**2**, Penrose, R. A. F., *fil.*
Soda, Mysore.—**0**, Balaji Rao, B., 2.
——, contact-metamorphism &.—**2**, Goldschmidt, V. M., 5.
Soda-trachyte. *See* Trachyte.
Sodalite.—**2**, Macgregor, A. G.
Soddite.—**2**, Schœp, A., 7.
Sodium carbonate minerals, Kenya. —**2**, Walther, P.
—— chlorate.—**1**, Liebisch, T., 5.
—— minerals.—**0**, United States, 6, 8 ; **2**, United States, 11.
—— sulphate.—**0**, Werveke, L. v., 14.
Soela Is. (Dutch E. Indies).—**2**, Brouwer, H. A., 9, 11 ; Jaworski, E., 3.
Soest (Westphalia).—**0**, Bœhm, J., 8.
Soignies (Hainault).—**1**, Rutot, A., 5.
Soil erosion, S. Rhodesia.—**1**, McDonald, J. G.
—— ——, W. Australia.—**0**, Jutson, J. T.
Soils.—**0**, Behr, F. M., 2 ; Stremme, H. ; **1**, Angelis d'Ossat, G. de ; Lapparent, J. de, 3 ; McConnell, P., 1, 2 ; Mueller, J., 2 ; **2**, Kessler, P., 3 ; Seidel, T.
Soils, Africa (N.).—**1**, Artini, E., 5 ; **2**, Gentil, L., 2.
——, Barbados.—**0**, Harrison, J. B., 2.
——, Carpathians.—**1**, Timkó, I. ; Treitz, P.
——, Czechoslovakia. — **0**, Ballenegger, R. ; Timkó, E., 2 ; **1**, Ballenegger, R. ; Horusitzky, H. ; László, G. v. ; Treitz, P., 2.
——, Egypt.—**1**, Hume, W. F., 5.
——, Finland.—**1**, Aarnio, B., 1, 2 ; Frosterus, B., 1, 2.
——, France (N.).—**1**, Gosselet, J., 2 ; **2**, Azam, A., 2 ; Schirardin, J.
——, Galloway.—**2**, Gauld, W. A.
——, Germany.—**0**, Klemm, G., 11 ; Schottler, W., 5 ; **2**, Niklas, H. ; Stoye, K. ; Vogel von Falckenstein, K.
——, Hungary.—**0**, Ballenegger, R., 2 ; Horusitzky, H. ; Timkó, E., 2 ; Treitz, P. ; **1**, Horusitzky, H., 3 ; Horváth, B. v.
——, I. of Wight.—**1**, White, H. J. O.
——, Italy.—**0**, Clerici, E. ; **1**, Dominicis, A. de, 1–3.
——, Kenya.—**2**, Gregory, J. W.
——, Kiangsu.—**2**, Chatley, H.
——, Manitoba.—**1**, Clark, K. A. ; **2**, Johnston, W. A., 2.
——, Montserrat I.—**2**, Hardy, F.
——, New Zealand.—**1**, Henderson, J., 5 ; **2**, Ferrar, H. T., 3 ; Given, W. A.
——, Patagonia.—**1**, Rovereto, G., 2.
——, Romania.—**0**, Ballenegger, R., 2 ; Timkó, E., 2 ; Treitz, P. ; **1**, Ballenegger, R., 3 ; Horusitzky, H., 2 ; Horváth, B. v. ; Timkó, I., 2, 3 ; Treitz, P., 2, 3 ; **2**, Enculescu, P., 5.
——, Saskatchewan.—**0**, Stansfield, J., 2.
——, S. Rhodesia.—**1**, Blackshaw, G. N.
——, Sweden.—**1**, Anrick, C. J.
——, Tasmania.—**1**, Nye, P. B.
——, United States.—**0**, Clark, W. B. ; Jones, S. C., 1–8 ; Leverett, F. ; Little, H. P. ; Schwennesen, A. T., 2 ; Wherry, E. T., 5, 6 ; **1**, Harper, R. M. ; **2**, Arey, M. F., 1, 2 ; New Jersey ; Tilton, J. L., 2, 3.
——, Yugoslavia. — **0**, Ballenegger, R., 2 ; Timkó, E. ; **1** Horusitzky, H., 2 ; Horváth, B. v. ; Treitz, P., 2.
——, analyses.—**1**, Ballenegger, R., 2, 4 ; Horváth, B. v., 1, 2.
——, ——, mechanical.—**0**, Odén, S., 1, 2 ; **1**, Ballenegger, R., 5 ; **2**, Marchand, B. de C.
——, classification.—**0**, Pollack, V., 2 ; Stremme, H., 2 ; **2**, Kessler, P., 5.
——, coloration.—**0**, Kœhne, W.

Soils, Devonian, Hainault.—**0**, Cambier, R.

——, geology &.—**0**, Fischer, H.; **1**, Emerson, F. V.

——, maps.—**2**, Stremme, H., 2.

——, properties.—**1**, Gans, R., 2; Robinson, G. W.

——, water &.—**0**, Ramann, E.; **1**, Houel, P.

——. *See also* Agrogeology, Earths, *&c.*

Solda, Val (Lombardy).—**1**, Repossi, E.

Sole Street (Kent).—**2**, Bromehead, C. E. N., 4.

Solenomorphidæ.—**0**, Holdhaus, K.

Solenopora.—**0**, Berckheimer, F.; Guerich, G.; Heritsch, F.; **2**, Dietrich, W. O., 4; Heritsch, F., 4.

Solfataras, Alaska.—**0**, Maddren, A. G., 2.

——, Campania.—**2**, Signore, F.

——, Sumatra.—**1**, Kemmerling, G. L. L., 2.

Solifluction.—**0**, Behr, F. M., 2; **2**, Brepson, F. *See also* Creep.

'Sölle.'—**2**, Geinitz, E.

Solothurn (Switzerland).—**0**, Muehlberg, F.; **1**, Lehner, E.; **2**, Keller, W. T.

Solution, pebbles &.—**0**, Kumm, A.

Solutions. *See* Magmatic solutions *&* Sulphate-solutions.

Solutrean, Poland.—**2**, Krukowski, S.

Sölvsbergite, Portuguese E. Africa.—**0**, Holmes, A., 9.

Somabula (S. Rhod.).—**1**, Macgregor, A. M.

Somaliland (French).—**2**, Dégoutin, M.

Somaliland (Italian).—**1**, Artini, E., 7; **2**, Neviani, A.; Portis, A.

Somerset.—**0**, McLennan, J. C., 2; Reynolds, S. H., 2; **1**, Dewey, H.; Greenly, E.; **2**, Thompson, W.; Trueman, A. E.; Wallis, F. S.

——, Pleistocene.—**0** & **1**, Greenly, E., 2; **2**, Greenly, E.

——. *See also* Bristol area.

Somma, Mte. (Vesuvius).—**0**, Cesàro, G.

Somme (France).—**1**, Briquet, A., 4–6.

Somme valley (France.)—**1**, King, W. B. R.; Lamothe, L. de; Rutot, A.

Sommen, L. (Sweden).—**0**, Hamberg, A.

Sonora (Mexico).—**0**, Paredes, T., 2; **1**, Wade, W. R.; **2**, Beal, C. H.; Peña, M.

Sonstadt's solution.—**2**, Walker, T. L.

Soonwald (Rheinland).—**1**, Leppla, A., 4, 5.

Sorby, H. C., microscopy &.—**0**, Hadfield, R.

Sorenbohm (Pomerania).—**1**, Menzel, H.

Soria (Spain).—**2**, Joly, H., 2.

Sosoye (Namur).—**2**, Demanet, F.

Sötenich (Eifel).—**1**, Kirchner, H. S.; Quiring, H., 1, 3.

Soubey (Berne).—**1**, Buxtorf, A., 4.

Soulac (Gironde).—**0**, Harlé, E.; **1**, Degrange-Touzin, A.

Sourbrodt (E. Belgium).—**1**, Fourmarier, P., 11.

Souris R. area (Saskatch.).—**1**, Dowling, D. B., 3.

South Africa.—**0**, Behrend, F.; Guerich, G., 2; Maufe, H. B., 6; Shand, S. J., 2; **1**, Cloos, H.; Rogers, A. W.; **2**, Du Toit, A. L., 1, 2; Schwarz, E. H. L.

—— ——, bibliography.—**2**, Hall, A. L.

—— ——, dolerites.—**0**, Du Toit, A. L., 2; **1**, Du Toit, A. L., 2, 5; Rogers, A. W., 2.

—— ——, geological survey. — **0**, South Africa.

—— ——, kimberlite.—**2**, Harger, H. S.; Rogers, A. W., 2; Schwarz, E. H. L., 2.

—— ——, mineral production.—**0**, South Africa, 2; **1** & **2**, South Africa.

—— ——, mineral resources.—**1**, Anon., 7; Cornell, F. C.; Trevor, T. G.; **2**, Palache, C.

—— ——. *See also* Bechuanaland Protectorate, Cape Province, *&c.*

South African Museum.—**0**, Péringuey, L.; **1**, South Africa, 2.

South America. *See* America.

South Atlantic. *See* Atlantic Ocean.

South Australia.—**0**, Howchin, W., 4, 5, 7, 8; Tilley, C. E.; **1**, Howchin, W., 1, 2, 4; Ward, L. K., 3; **2**, Fenner, C. N.; Howchin, W., 2.

—— ——, annual report.—**0**, **1** & **2**, South Australia.

—— ——, borings.—**1**, Ward, L. K., 5–7.

—— ——, graphite.—**0**, Jack, R. L., 2; **1**, Clark, T. H., 2; Tilley, C. E., 4; **2**, Tilley, C. E., 4.

—— ——, igneous & metamorphic rocks.—**0**, Tilley, C. E., 2, 3; **1**, Browne, W. R.; Tilley, C. E., 1, 2; **2**, Tilley, C. E.

—— ——, mineral production.—**0** & **1**, South Australia, 2.

—— ——, mineral resources.—**0**, Winton, L. J.; **1**, Broughton, A. C.; Jack, R. L., 1, 2, 4–6; Ward, L. K., 1, 2, 8; Winton, L. J., 1, 2, 4, 5; **2**, Broughton, A. C.; Ward, L. K., 1, 2.

—— ——, ore-deposits.—**0**, Jack, R. L.; Winton, L. J., 2–4; **1**, Jack, R. L., 3; Ward, L. K., 4; Winton, L. J., 3; **2**, Jack, R. L.

—— ——, prehistory.—**0**, Howchin, W., 9; White, S. A.; **2**, Howchin, W., 3.

—— ——, stratigraphy.—**0**, Howchin, W., 1–3; **1**, Chapman, F., 3.

South Australia, text-book. — **0**, Howchin, W., 6.
—— ——, water.—**0**, South Australia, 3, 4.
South Carolina (U.S.A.).—**0**, Grover, N. C., 3 ; Keith, A. ; **2**, Schrader, F. C.
South Cave (Yorks).—**2**, Stather, J. W., 2.
South Dakota (U.S.A.).—**0**, Darton, N. H., 3, 4 ; **2**, Leverett, F., 1, 2 ; O'Harra, C. C. ; Wanless, H. R., 2.
—— —— (——), mineral resources. —**0**, Morse, R. R. ; United States, 4–6, 8 ; **2**, Simmersbach, B., 8 ; United States, 8, 10.
—— —— (——), stratigraphy.—**0**, Stanton, T. W., 2 ; Todd, J. E.; **1**, Runner, J. J. ; **2**, Sinclair, W. J., 2, 6 ; Wanless, H. R.
—— —— (——), water.—**0**, Grover, N. C., 2, 4 ; **1**, Grover, N. C., 3 ; **2**, Grover, N. C., 5.
South Downs.—**1**, Martin, E. A.
South Georgia (S. Atlantic).—**0**, Great Britain ; **1**, Kuehn, F. ; **2**, Wordie, J. M., 3.
South Leverton (Notts).—**0**, Ford, J.
South Lorrain (Ont.).—**2**, Bell, J. M.
South Maitland (N.S.W.).—**2**, Robertson, J. R. M.
South Mimms (Middlesex).—**1**, Wooldridge, S. W.
South Orkneys (S. Atlantic).—**0**, Great Britain ; **1**, Kuehn, F.
South Sandwich Is. (S. Atlantic).—**0**, Great Britain.
South Shetlands (S. Atlantic).—**0**, Great Britain ; **2**, Ferguson, D. ; Thomas, Herbert H. ; Tyrrell, G. W. ; Wordie, J. M., 3.
South Ulam (Queensl.).—**0**, Saint-Smith, E. C., 2.
South Victoria Land (Antarctica).—**0**, Debenham, F. ; **2**, Debenham, F., 1, 2 ; Rastall, R. H. ; Smith, W. C., 2, 3.
South Wales. *See* Wales.
South-West Africa.—**0**, Kaiser, E. ; Rand, R. F. ; Richters, F. ; Rimann, E. ; Schwarz, E. H. L. ; **1**, Kaiser, E., 2 ; Schneiderhœhn, H., 3 ; **2**, Kaiser, E., 2 ; Schneiderhœhn, H.
—— - —— ——, minerals.—**1**, Henglein, M. ; **2**, Pufahl, O. ; Wagner, P. A., 2.
—— - —— ——, ore-deposits. — **1**, Wagner, P. A., 2 ; **2**, Hueser, — ; Rimann, E. ; Westphal, H.
—— - —— ——, petrography. — **0**, Cloos, H., 2 ; Range, P., 2 ; **1**, Cloos, H.
South Zeit (Egypt).—**0**, Hume, W. F., 5.
Southern hemisphere, palæogeography.—**1**, Steinmann, G. ; Windhausen, A. ; **2**, Benham, W. B. ; Keidel, J. ; Thomson, J. A.
Southern Shan States.—**2**, Brown, J. C., 2.
Southington (Conn.).—**1**, Palmer, H. S., 2.
Southland (N.Z.).—**0**, New Zealand, 6 ; **2**, Fowler, J. M. ; Park, J. ; Speight, R., 2.
Sövdeborg (Sweden).—**0**, Munthe, H.
Spa (Liége).—**2**, Poskin, A.
Spain.—**0**, Gale, H. S. ; **1**, Novo y Chicarro, P. de ; **2**, Gómez, J. R.
—— (E.).—**2**, Gignoux, M., 2, 3.
—— (N.E.).—**1**, Born, A. ; **2**, Douvillé, H., 8 ; Joly, H., 4.
—— (S.).—**2**, Scotti, H. v.
——. *See also* Barcelona, Betic Cordillera, *&c.*
Spanish Morocco. *See* Morocco.
Sparagmite, Norway.—**2**, Holtedahl, O., 6.
——, Sweden.—**0** & **1**, Frœdin, G. ; **2**, Frœdin, G., 3 ; Wiman, C.
Sparnberg (Thuringia).—**1**, Theobald, H.
Sparnodus.—**2**, Erasmo, G. d'.
Speckstein. *See* Talc.
Spectrometer.—**2**, Leiss, C., 2.
Spectrum, crystals &.—**1**, Liebisch, T., 3.
Sperenberg (Brandenburg).—**0**, Gagel, C., 3.
Spermophilus.—**1**, Dubois, G., 2.
Spessartite, Idaho.—**2**, Shannon, E. V., 2.
——, Saxony.—**1**, Beger, P. J.
Spezia (Liguria).—**1**, Crema, C., 2.
Sphærocobaltite.—**2**, Schœp, A., 4.
Sphærocoryphe.—**0**, King, W. B. R.
Sphalerite.—**1**, Dove, L. P. ; Holmquist, P. J., 9 ; **2**, Beutell, A., 12 ; Helbronner, A. ; Veit, K.
——, Hesse.—**2**, Eitel, W., 3.
——, Sardinia.—**1**, Tacconi, E., 2.
——, Silesia (Czechos.).—**2**, Kretschmer, F., 2.
Sphene.—**2**, Johnsen, A., 11 ; Koller, P.
Sphenopteris.—**1**, Bertrand, P., 1, 2 ; Carpentier, A., 8.
Spherules, sulphur.—**0**, Ōhashi, R.
Spherulite-porphyry. *See* Porphyry.
Spherulites, in obsidian.—**2**, Rogers, A. F., 3.
Spherulitic structure, septaria.—**2**, Wetzel, W., 4.
Spicer's Creek (N.S.W.).—**0**, Jones, L., 4.
Spieglitz (Moravia).—**0**, Kretschmer, F.
Spiennes (Hainault).—**1**, Rutot, A., 3.
Spilosite.—**1**, Milch, L.
Spinel.—**1**, Andersen, O. ; Holmquist, P. J., 9 ; **2**, Sjœgren, H.
Spiral movements, in rocks.—**1**, Wilson, T. S.
Spirifer.—**0**, Buckman, S. S., 3 ; Thomson, J. A., 6 ; **1**, Quiring, H., 2 ; Richter, R., 3.

Spiriferina.—**0**, North, F. J.
Spirillina.—**1**, Sollas, W. J.
Spirodesmos.—**2**, Andrée, K., 3.
Spirula.—**2**, Prell, H.
Spirulirostra.—**2**, Berry, E. W., 9.
Spitsbergen.—**0**, Cadell, H. M., 4; Holmes, A., 10; Holtedahl, O., 7, 17; Werenskiold, W., 4; **1**, Backlund, H. G.; Tyrrell, G. W., 2; Wordie, J. M.
——, coal.—**0**, Cadell, H. M.; **1**, Cadell, H. M. 2; Zetzsche, P.; **2**, Brown, R. N. R.; Hoel, A.; Simmersbach, B., 6.
——, Palæozoic.—**0**, Holtedahl, O., 3, 4, 8; Stensiœ, E. A.
——, stratigraphy.—**1**, Gregory, J. W., 2; Sandegren, R.; **2**, Odell, N. E.; Tyrrell, G. W., 2.
Splügen (Graubünden).—**0**, Buxtorf, A., 2; **1**, Buxtorf, A.
Sponge-beds, Ardèche.—**2**, Lissajous, M.
—— -gravel beds, Berkshire. — **0**, Davey, E. C.
Spongeliomorpha.—**2**, Reis, O. M., 3.
Spongiæ.—**0**, Walcott, C. D.; **1**, Bernauer, F.; Ravn, J. P. J. *See also* Silicispongiæ.
Spongiostroma-limestone, Bristol area. —**1**, Reynolds, S. H., 2.
Spongites.—**0**, Dettmer, F.
Spongoliths.—**1**, Bellière, M.
Springs.—**0**, Pollack, V.; Welsch, J.; **1**, Houel, P.; **2**, Jérome, A.; Kranz, W., 5; Weissenberger, G.; Whitaker, W.
——, Anhalt.—**0**, Becker, A.
——, Buckinghamshire. — **1**, Whitaker, W., 2.
——, Chile.—**1**, Felsch, J.
——, Dalmatia.—**0**, Kerner, F. v., 12.
——, England (E.).—**2**, Whitaker, W., 2.
——, Essex.—**1**, Prestwich, J.
——, Finistère.—**1**, Collin, L., 2.
——, Florida.—**2**, Imbeaux, E.
——, Galicia.—**0**, Wegner, T., 3.
——, Gloucestershire.—**1**, Richardson, L., 4.
——, Hertfordshire. — **1**, Whitaker, W., 2.
——, Liguria.—**1**, Crema, C., 2.
——, Mexico.—**1**, Lozano, E. D., 2.
——, New Zealand.—**1**, Henderson, J., 5.
——, Norfolk.—**1**, Whitaker, W.
——, Slovakia.—**1**, Schréter, Z., 2.
——, Switzerland.—**0**, Gutzwiller, A., 1, 2; **2**, Mauve, C. C.
——, ferriferous, Silesia (Czechosl.).— **2**, Kretschmer, F., 3.
——, glacier, New Zealand.—**0**, Hardcastle, J.
——, mineral.—**1**, Rogers, G. S., 2; **2**, Hintz, E
——, ——, Alaska.—**0**, Waring, G. A.
——, ——, Algeria.—**1**, Savornin, J.
Springs, mineral, Europe.—**2**, Weber, H.
——, ——, Germany.—**1**, Huelsenbeck, B.; Mestwerdt, A., 3, 4; Michael, R., 3; **2**, Fliegel, G., 2.
——, ——, Liége.—**2**, Poskin, A.
——, ——, Lower Austria.—**0**, Eichleiter, C. F., 3.
——, ——, Madagascar. — **2**, Lacroix, A., 2.
——, ——, New Zealand.—**1**, Anon., 25.
——, ——, Romania.—**2**, Mrazec, L., 2.
——, ——, United States.—**0**, United States, 5, 6, 8.
——, ——, Victoria.—**0**, Skeats, E. W.
——, ——, analyses.—**0**, Gruenhut, L.; Hackl, O., 3; **2**, Dumitriu, V., 1, 2.
——, natural steam, Tuscany.—**0**, Anon., 27.
——, radioactive, France.—**0**, Lepape, A.; Loisel, P.; **1**, Censier, E.; Loisel, P.; **2**, Cluzet, J.; Loisel, P., 1, 2.
——, ——, Romania.—**2**, Loisel, P., 3.
——, ——, Trentino.—**0**, Kerner, F. v., 13.
——, ——, Tyrol.—**0**, Bamberger, M.; Kerner, F. v., 1, 13.
——, saline, Canada (E.).—**1**, Hayes, A. O.
——, ——, Germany.—**2**, Gillitzer, G.; Linstow, O. v., 2.
——, sulphur, Moravia .— **0**, Eichleiter, C. F., 2; **2**, Kretschmer, F., 5.
——, ——, Vienna Basin.—**0**, Hackl, O., 8.
——, thermal, Africa.—**2**, Launay, L. de.
——, ——, Arkansas.—**2**, Bryan, K.
——, ——, Bolivia.—**2**, Lindgren, W. 2.
——, ——, British Columbia. — **2**, Dolmage, V.
——, ——, Fiji Is.—**2**, Wright, C. H.
——, ——, Lower Austria.—**2**, Waagen, L.
——, ——, Porto Rico.—**0**, Hodge, E. T.
——, ——, Savoie.—**1**, Révil, J., 2.
——, ——, Sumatra. — **1**, Kemmerling, G. L. L., 2.
——, ——, Uganda.—**1**, Wayland, E. J., 11.
——, ——, Vulcano I.—**1**, Fiore, O. de, 2.
Springs (Transvaal).—**2**, Wybergh, W. J.
Springsure (Queensl.). — **2**, Saint-Smith, E. C.
Spurn Pt. (Yorks).—**1**, Sheppard, T., 6; **2**, Sheppard, T., 2.
Spurrite.—**0**, Foshag, W. F., 4.
Squalodelphis.—**2**, Dal Piaz, G., 2.

Squalodon.—**2**, Dal Piaz, G.
Squalodontidæ.—**2**, Frenguelli, G.
Squamata.—**0**, Sollas, W. J., 2; **1**, Fejérvary, G. J. de.
——, Cretaceous.—**0**, Huene, F. v., 2; **2**, Wiman, C., 3.
——, Miocene.—**1**, Bolkay, St. J.
——, Pleistocene.—**1**, Bolkay, St. J.
——, Tertiary.—**1**, Stefano, G. de.
Srimangal (Assam).—**1**, Stuart, M., 3.
Staddon grits.—**1**, Evans, J. W., 2.
Staffordian, Glamorgan.—**1**, Davies, D., 1, 2.
Staffordshire.—**0**, Barke, F.; Jackson, J. W., 2; **1** & **2**, King, W. W., 2.
——, mineral resources.—**0**, King, W. W.; Scott, A., 2; **1**, Anon., 17; Fox, J.; Newey, D. S.; Ridsdale, H. H.
——, Palæozoic.—**1**, Alkins, W. E.; **2**, Kay, H.; Whitehead, T. H.
Stalactites, copper sulphate.—**2**, Mitchell, G. J., 2.
——, stalagmites &.—**0**, Meunier, S., 5.
Stampian, Algeria.—**1**, Joleaud, L.
Stanley shale, Oklahoma.—**1**, Honess, C. W.
Stannous sulphide.—**1**, Spencer, L. J.
Stanserhorn (Unterwalden). — **0**, Christ, P.
Stanstead (Herts).—**2**, Sherlock, R. L., 3.
Stanton Drew (Somerset). — **2**, Thompson, W.
Start area (Devon).—**2**, Tilley, C. E., 2.
Stasite.—**2**, Schœp, A., 6.
Stassfurt (Prussia). — **0**, Becker, A.; **2**, Rózsa, M., 5.
Staurolite.—**0**, Anten, J., 3; **1**, Marchet, A.
Stavanger (Norway).—**2**, Goldschmidt, V. M., 10.
Stavelot (Liége).—**2**, Leblanc, E.
Stavoren (Transvaal).—**1**, Wagner, P. A., 5.
Steam. *See* Natural steam.
Steatite, Lombardy.—**1**, Salmojraghi, F. *See also* 'Seifige Erde,' Talc, *&c.*
STEENSTRUP, J., bibliography & centenary.—**0**, Dahl, S.; Jungersen, H. F. E.
Steeprock series, Ontario.—**0**, Rothpletz, A.
Stegocephalia.—**0**, Walther, J., 4; **1**, Mehl, M. G.
——, Coal Measures.—**1**, Watson, D. M. S., 3.
——, Trias.—**0**, Seidlitz, W. v.; **2**, Broili, F., 2; Drevermann, F.; Huene, F. v., 4, 8, 9.
Stegodon.—**0**, Wadia, D. N.
Stegosaurus.—**0**, Gilmore, C. W., 2.
Steinach (Tyrol).—**0**, Kerner, F. v.
Steinau (Hesse-Nassau).—**0**, Drevermann, F.
Steinbach-Hallenberg (Thuringia).—**1**, Bœhne, E.
Steinheim (Hesse).—**1**, Schauf, W.
Steinheim (Württemberg). — **1**, Bucher, W. H., 3; **2**, Klæhn, H.; Wenz, W., 4.
Steinhof (Lr. Austria).—**0**, Grengg, R.
Stenopterygius.—**2**, Wiman, C., 4.
Stephanian, Brittany.—**0**, Picquenard, C. A.; **1**, Picquenard, C., 1, 2; **2**, Picquenard, C.
Stephanophyllia.—**2**, Oppenheim, P., 5, 6.
Stepheoceras.—**2**, Collet, L. W., 2.
Steptoe valley (Nev.).—**1**, Clark, W. O.
Sterlingbush (N.Y.).—**1**, Clarke, N. T.
Sternberg (Moravia).—**2**, Kretschmer, F., 4.
Sterzing (Trentino).—**0**, Sander, B., 3.
Stevenage (Herts).—**2**, Culpin, B. E. L.
Stevns Klint (Denmark).—**1**, Nielson, K. B.
Stibnite.—**1**, Duplessix, E., 2.
——, Europe (Central).—**0**, Hinterlechner, K., 4.
Stichtite.—**0**, Foshag, W. F., 6; **2**, Foshag, W. F.; Hall, A. L., 4.
Stilbite.—**1**, Merwin, H. E. *See also* Desmine.
Stilfserjoch (Engadin).—**0**, Spitz, A., 10.
Stilpnomelane.—**0**, Shannon, E. V., 8, 12; **2**, Shannon, E. V., 1, 5.
Stinking Creek area (Ky.).—**2**, Jillson, W. R., 11.
Stirling Ranges (W. Austr.).—**1**, Woolnough, W. G.
Stirlingshire.—**0**, Stark, J.
Stockholm area (Sweden).—**1**, Holmquist, P. J., 10, 11.
Stockhorn (Berne).—**0**, Jeannet, A., 2.
Stocks, quartz-, Moravia.—**2**, Kretschmer, F.
——, salt.—**2**, Kraus, M.
Stone Age.—**0**, Rœrdam, K.; Smith, R. A.; **1**, Shetelig, H., 2.
—— ——, Ceylon.—**1**, Wayland, E. J.
—— ——, Ladoga L. area.—**0**, Ailio, J.
—— ——, Norway.—**1**, Bjorn, A.; Kaldhol, H.
—— ——, Sweden.—**2**, Sundelin, U., 2.
Stone-polygons.—**1**, Trevor-Battye, A.
Stonehaven (Kincardinesh.). — **0**, Bremner, A., 2.
Stones. *See* Ornamental stones, Rocks, *&c.*
Stone's River group, Kentucky.—**0**, Fœrste, A. F., 4.

Stora Lule R. (Sweden).—**1**, Frœdin, J.

Storsjöen (Norway).—**0**, Vogt, J. H. L.

Stourbridge (Worcs).—**1**, Anon., 2.

Stramentum.—**0**, Withers, T. H.

Strand-lines.—**0**, Suess, F. E.

——-——, Algeria.—**2**, Lamothe, — de.

——-——, Finland (S.).—**1**, Auer, V. ; Ramsay, W., 2, 3.

——-——, Italy (S.).—**2**, Wepfer, E., 4.

——-——, Norway.—**0**, Danielsen, D., 2 ; Holmsen, G. ; Rekstad, J., 2 ; Vogt, T., 2 ; **1**, Holmsen, G. ; **2**, Reekstad, J. ; Rusch, H., 3 ; Werenskiold, W., 2.

——-——, Pyrénées-Orientales.—**0**, Mengel, O.

——-——, Sweden.—**1**, Lundquist, G., 2 ; **2**, Geer, G. de, 2.

——-——, platforms &.—**1**, Cvijić, J., 1–3.

——-——. *See also* Raised beaches.

Strand-markings, in sandstones.—**1**, Powers, S.

Strasbourg (Alsace).—**0**, Hecker, O., 2.

Strata.—**1**, Roscoe, H. ; **2**, Cortese, E. ; Evans, J. W., 7 ; Miller, W. J., 2.

——, classification.—**0**, Sacco, F., 24 ; **2**, Wedekind, R., 3.

——, determination.—**0**, Palmer, H. S. ; **2**, Mertie, J. B., *fil*, 3 ; Price, W. A.

Strathaven (Lanarksh.).—**1**, Hinxman, L. W.

Strathmore (Forfar - Perth). — **1**, Coates, H. ; **2**, McLintock, W. F. P.

Stratification.—**0**, Chadwick, G. H., 4 ; **1**, Udden, J. A. ; **2**, Fossa-Mancini, E., 5.

——, crystalline schists.—**2**, Erdmannsdœrffer, O. H., 2.

——, deltaic sediments.—**2**, Johnston, W. A., 4.

——. *See also* Cross-bedding.

Stratigraphy, cartographic representation.—**1**, Evans, J. W.

——, classification.—**0**, Haase, E.

——, correlation.—**0**, Cushman, J. A., 4.

——, dip needle in.—**2**, Aldrich, H. R.

——, fossil zones &.—**2**, Diener, C., 7.

——, mineral-resources distribution &.—**2**, Krahmann, M.

——, nomenclature. — **1**, Maillieux, E., 5.

——, teaching.—**1**, Weller, S.

——. *See also* Biostratigraphy.

Stratiotes.—**2**, Chandler, M. E. J., 4.

Strehlen (Silesia).—**1**, Behr, J.

Striæ, fluvial.—**1**, Lugeon, M., 7.

——, glacial, Basel. — **0**, Leuthardt, F.

Striæ, glacial, Himalayas. — **0**, Gregory, J. W., 2.

——, ——, New South Wales.—**1**, Osborne, G. D., 2.

——, ——, New Zealand.—**2**, Fowler, J. M.

Striegau (Silesia).—**1**, Guerich, G. ; **2**, Muehlen, L. v. z., 3.

Strike, determination.—**1**, Longwell, C. R., 2 ; Sokol, R. ; **2**, Smith, W. S. T., 2.

Stringocephalus.—**2**, Kindle, E. M.

—— -beds, Eifel.—**1**, Schulz, E.

Ströbel (Silesia).—**1**, Muehlen, L. v. z., 2.

Strobilops.—**2**, Wenz, W.

Stromatolites.—**1**, Holtedahl, O.

Stromatoporoidea.—**0**, Rothpletz, A.; **2**, Heinrich, M.

——, Cretaceous.—**1**, Dehorne, Y.

——, Devonian.—**0**, Charlesworth, J. K. ; **1**, Vinassa de Regny, P., 2.

Stromboli (Lipari Is.).—**1**, Riccò, A.

Strona valley (Piedmont).—**2**, Roccati, A., 3.

Strontianite, Canada.—**1**, Spence, H. S., 2.

——, Westphalia.—**1** & **2**, Becker, J.

Strontium.—**0**, United States, 6, 8 ; **1**, United States, 2, 4, 9 ; **2**, United States, 11, 13.

—— silicates.—**2**, Eskola, P.

Strophades Is. (Greece).—**2**, Oppenheim, P., 3.

Stropheodonta.—**1**, Dahmer, G., 4.

Strophomenidæ.—**0**, Holtedahl, O., 9.

Strophostylus.—**1**, Collin, L., 3.

Structure, rocks.—**0**, Lohest, M., 2 ; Sander, B., 5.

Strueverite.—**2**, Headden, W. P.

Struthiomimus.—**2**, Nopcsa, F., 9.

Stubaital (Tyrol).—**0**, Kerner, F. v., 3.

Stubalp (Styria).—**0**, Angel, F., 2 ; **2**, Heritsch, F., 7 ; Leitmeier, H., 4.

Stylophora.—**1**, Haas, F.

Styria (Austria).—**0**, Aigner, A. ; Mohr, H. ; **1**, Hœfer, H. v., 2 ; Lehmann, O., 2 ; Schmidt, W. ; **2**, Ampferer, O., 4 ; Kyrle, G.

—— (——), basalt.—**1**, Jugovics, L., 2 ; **2**, Sigmund, A. ; Stiny, J., 3.

—— (——), geology.—**0**, Geyer, G., 3 ; Jugovics, L., 2 ; Kittl, E. ; Spengler, E., 4 ; **1**, Jugovics, L. ; Mohr, H. ; Tornquist, A., 2.

—— (——), magnesite.—**1**, Grosspietsch, O. ; Kittl, E., 2 ; **2**, Ascher, F. H. ; Machatschki, F. ; Redlich, K. A., 4.

—— (——), mammalian cave-remains.—**2**, Abel, O., 1, 2 ; Wettstein-Westersheim, O.

—— (——), mineral resources.—**0**, Hinterlechner, K., 4 ; Kittl, E., 3 ; **1**, Chlebus, P. ; Mohr, H., 3 ; **2**, Bœhne, E. ; Schadler, J.

Styria (Austria), Palæozoic. — **1**, Heritsch, F., 1–3 ; Spengler, E., 2 ; **2**, Bock, H. ; Heritsch, F. ; Hilber, V., 2 ; Penecke, K. A.

—— (——), petrography.—**0**, Angel, F., 1, 2 ; Heritsch, F., 3 ; Stiny, J. ; **1**, Kittl, E. ; **2**, Angel, F. ; Heritsch, F., 6, 7 ; Leitmeier, H., 4 ; Stiny, J., 1, 2, 4, 5.

—— (——), Tertiary.—**0**, Dreger, J. ; Teppner, W. v. ; **2**, Stiny, J., 6 ; Winkler, A., 1, 2.

—— (——), Trias.—**0**, Geyer, G., 2 ; **1**, Spengler, E. ; **2**, Diener, C., 8.

Subantarctica.—**2**, Benham, W. B. ; Ferguson, D. ; Thomson, J. A. ; Tyrrell, G. W. ; Wordie, J. M., 3. *See also* South Shetlands, Trinity I., *&c.*

Subhercynian, Germany.—**1**, Linstow, O. v., 6 ; Scupin, H., 2.

Sublimates, volcanic gases &.—**0**, Clarke, F. W.

Submerged forests. *See* Forests.

Subsidence, Bavaria.—**2**, Kranz, W., 8.

——, France (S.E.).—**1**, Négris, P., 6.

——, Holland.—**0**, Suess, F. E.

——, Norway.—**1**, Bjorn, A. ; Kaldhol, H.

——, Orkney Is.—**0**, Flett, J. S.

——, coral-reefs &.—**0**, Moscheles, J., 3.

——, in mining.—**2**, Louis, H., 2 ; Rees, D. W.

——. *See also* Level, changes of *&* Sea-level.

Subungulata.—**2**, Matsumoto, H. ; Stromer, E., 5. *See also* Hyracoidea, Proboscidea, *&c.*

Sudan, Cretaceous-Eocene.—**0**, Douvillé, H., 8 ; **1**, Douvillé, H., 17, 20.

—— (Anglo-Egyptian). — **0**, Grabham, G. W. ; Smith, W. C. ; **1**, Lynes, H. ; **2**, Grabham, G. W.

Sudbury (Ont.).—**0**, Bell, J. M. ; Lindgren, W., 4 ; **2**, Quirke, T. T.

Süderbrarup (Schleswig).—**0**, Wolff, W.

Sudetes Mts. (Bohemia-Silesia).—**0**, Zahálka, C.

Suen (Valais).—**0**, Sigg, H.

Suess, E., geology &.—**0**, Tietze, E. E. A., 8 ; **1**, Novo y Chicarro, P. de.

Suez, Gulf of.—**1**, Gregory, J. W., 3.

Suez area (Egypt).—**2**, Barthoux, J.

Suffield (Conn.).—**1**, Palmer, H. S.

Suffolk.—**0**, Moir, J. R., 1, 2, 4 ; **1**, Moir, J. R., 1–3 ; Sweeting, R. D. ; **2**, Boswell, P. G. H., 4, 10, 11 ; Smith, R. A., 2.

Suhl (Thuringia).—**2**, Russwurm, P.

Suidæ.—**2**, Athanasiu, S. C., 7 ; Gidley, J. W. ; Merriam, J. C.

Sula Is. *See* Soela Is.

Sulden (Trentino).—**0**, Klebelsberg, R. v., 6.

Sulitelma (Norway).—**0**, Holmsen, G., 2 ; **1**, Vogt, T.

Sulphate-solutions, humus &.—**2**, Hœgbom, A. G.

Sulphates.—**0**, Gaudefroy, C. ; Larsen, E. S.

Sulphide minerals.—**1**, Buttgenbach, H.

—— -silicate-melts.—**0**, Vogt, J. H. L., 2, 3.

—— veins. *See* Veins.

Sulphides.—**2**, Beutell, A., 4 ; Kraus, E. H.

——, ore-.—**0**, Hills, L. ; **1**, Krusch, P., 2 ; **2**, Berg, G., 2 ; Duparc, L., 2.

——, ——, Canada.—**0**, Hanson, G.

——, ——, Fennoscandia.—**1**, Geijer, P., 4.

——. *See also* Iron sulphides, Stannous sulphide, *&c.*

Sulphohalite.—**0**, Foshag, W. F., 2.

Sulpho-minerals.—**2**, Kraus, E. H.

—— -salts.—**1**, Foshag, W. F., 4.

Sulphur.—**1**, Ehringhaus, A., 2 ; **2**, Berg, G., 4 ; Chaudron, G. ; Muegge, O., 12.

——, Alaska. — **0**, Maddren, A. G., 2.

——, Belgium.—**1**, Buttgenbach, H.

——, Iraq.—**1**, Pascoe, E. H., 2.

——, Mexico.—**0**, Wittich, E., 3 ; **2**, Cervantes, E. A.

——, Sicily.—**1**, Papp, K. v., 2.

——, S. Africa.—**1**, Trevor, T. G.

——, United States. — **1**, United States, 4.

——, in coal.—**0**, Thiessen, R., 2 ; **1**, Ashley, G. H., 2 ; Thiessen, R. ; Wheeler, R. V. ; White, I. C. ; **2**, Fourmarier, P., 9.

——, spherules, Japan.—**0**, Ōhashi, R.

——, world's production & occurrences.—**0**, United States, 4, 8 ; **2**, Great Britain, 18 ; Schultze, E. ; United States, 9, 11.

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Sulzbach (Alsace).—**0**, Wohlfarth, K.

Sülze (Hanover).—**1**, Stoller, J., 2.

Sumatra.—**0**, Klein, W. C. ; Oppenoorth, W. F. F., 1, 2 ; Van Es, L. J. C. ; **1**, Kemmerling, G. L. L., 2 ; **2**, Baumberger, E., 2.

——, contact - metamorphism. — **2**, Brouwer, H. A., 3–6, 8.

——, mineral resources.—**0**, Dieckmann, W. ; Jongh, C. A. de ; **2**, Hartmann, E. ; Mannhardt, F. G. ; Schreiber, F. ; Ziegler, K. G. J.

Sunderland (Durham).—**0**, Robson, S.

Sunk (Styria).—**1**, Grosspietsch, O.

Sunset-Midway (Cal.).—**0**, Pack, R. W. ; Rogers, G. S., 3.

Suojärvi (Finland).—**1**, Berghell, H.

Superior, L. *See* Lake Superior.

Surface creep, fallacious dip &.—**2**, Lugeon, M., 2.

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Surrey.—**0**, Dewey, H. ; Monckton, H. W. ; Whitaker, W., 1, 4 ; **1**, Turner, E. A. ; Whitaker, W., 4 ; Young, G. W. ; **2**, Davies, G. M. ; Dewey, H., 2 ; Wrigley, A., 2.
——, Cretaceous.—**0**, Butler, G. W. ; **1**, Stamp, L. D., 4 ; **2**, Butler, G. W. ; Dibley, G. E., 2 ; Stamp, L. D., 2.
Surveying, tectonic movements &.—**1**, Schmidt, M.
Surveys. *See* Geological Surveys *&* Regional Surveys.
Sus.—**2**, Athanasiu, S. C., 7.
Susa valley (Piedmont).—**2**, Negri, G.
Susitna (Alaska).—**0**, Chapin, T., 3.
Sussex.—**0**, Strahan, A. ; Ward, E. M. ; **1**, Martin, E. A. ; **2**, Hooley, R. W. ; Thomson, D. H.
——, gas.—**0**, Great Britain, 5 ; McLennan, J. C., 2 ; Strahan, A., 4.
——, Mesozoic.—**1**, Abbott, W. J. L. ; **2**, Milner, H. B., 3 ; Woodward, B. B.
——, prehistory.—**0**, Ramstrœm, M. ; Rutot, A. ; **1**, Lankester, E. R., 2.
Sussexite.—**2**, Aurousseau, M.
Sutherland.—**0**, Macgregor, M.
Suzette (Vaucluse).—**1**, Termier, P., 5 ; **2**, Termier, P., 7.
Svilaja (Dalmatia).—**0**, Kerner, F. v., 4.
Swabia (Germany).—**0**, Bræuhæuser, M. ; Drevermann, F., 5 ; Geyer, D. ; **1**, Dittus, D. ; Schmidt, A.
—— (——), Mesozoic.—**0**, Musper, F. ; **1**, Kessler, P. ; Wagner, G.
—— (——), Tertiary.—**0**, Berz, K. C. ; **2**, Dietrich, W. O., 1, 9, 10 ; Leuze, J. ; Richter, M., 2 ; Wenz, W., 2.
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—— - ——, Jamaica.—**2**, Thompson, B.
—— - ——, Jura.—**1**, Bourgeat, F. E., 2.
—— - ——, Lancashire.—**0**, Smith, B.
Swanscombe (Kent).—**0**, Stamp, L. D., 3 ; **1**, Priest, S.
Sweden.—**0**, Rosén, S. ; **1**, Geer, G. de ; Guinchard, J. ; Lundquist, G., 2 ; **2**, Hœgbom, A. G. ; Lindroth, G. T. ; Osvald, H. ; Sundius, N., 2 ; Sweden.
——, bibliography.—**0**, **1** & **2**, Åhlander, F. E.
——, earthquakes. — **2**, Sahlstrœm, K. E.
——, geology.—**0**, Geer, G. de ; Holmquist, P. J., 2 ; Olivecrona, H. ; Sandegren, R. ; **1**, Frœdin, G., 2 ; Hœgbom, A. G. ; Holmquist, P. J., 10, 11 ; **2**, Hœgbom, A. G., 2 ; Magnusson, N. H.
Sweden, mineral resources.—**0**, Anon., 39 ; Harder, E. C., 2 ; **1**, Geijer, P., 2 ; **2**, Geijer, P. ; Johansson, S. ; Naumann, E.
——, minerals.—**0**, Orton, B. ; **1**, Aminov, G., 3 ; Eckermann, H. v. ; Geijer, P., 5 ; Zenzén, N. ; **2**, Flink, G. ; Zenzén, N., 1–3.
——, Palæozoic.—**0**, Gavelin, A., 2 ; Grœnwall, K. A., 1, 2 ; **2**, Frœdin, G., 3 ; Westergård, A. H. ; Wiman, C.
——, peat.—**2**, Halden, B. E., 2 ; Post, L. v. ; Sernander, R.
——, petrology.—**0**, Hœgbom, I. ; Lindroth, G. T. ; Quensel, P. ; Sundius, N., 2 ; **1**, Gavelin, A. ; Magnusson, N. H. ; **2**, Eckermann, H. v. ; Quensel, P. ; Sundius, N.
——, physiography.—**0**, Carlzon, C., 2 ; Halden, B. ; Hamberg, A. ; **1**, Munthe, H., 1, 2 ; **2**, Cleve-Euler, A. ; Geer, G. de, 2 ; Wallerius, I. D., 2.
——, Quaternary.—**0**, Halden, B., 2 ; Odén, S., 3 ; Sundelin, A. ; **1**, Frœdin, J. ; Geer, G. de, 2 ; Halden, B. E. ; Sandegren, R. ; **2**, Sundius, N., 3.
——, soils.—**1**, Anrick, C. J. ; **2**, Halden, B. E., 5.
——, stratigraphy.—**0**, Gavelin, A. ; Munthe, H. ; Wiman, C., 3 ; **1**, Holmquist, P. J., 5 ; **2**, Trœdsson, G. T.
—— (Central).—**0**, **1** & **2**, Frœdin, G.
—— (S.), Quaternary.—**0**, Post, L. v. ; **2**, Antevs, E. ; Halden, B. E., 4 ; Sundelin, U.
—— (S.W.), peat-bogs.—**1**, Erdtman, G., 2 ; **2**, Sweden, 2.
——. *See also* Gotland, Skåne, *&c.*
SWEDISH BOARD OF MINES, mineral collection.—**1**, Zenzén, N.
Sweet Grass Hills (Mont.).—**0**, Kemp, J. F., 5 ; **2**, Kemp, J. F., 7.
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Swindon (Wilts).—**2**, Chatwin, C. P.; Gore, C. H.
Swinemünde (Pomerania).—**1**, Kranz, W.
Switzerland.—**0**, Æppli, A. ; Mercanton, P. L. ; **1**, Mercanton, P. L., 2 ; Sarasin, C. ; **2**, Collet, L. W., 3 ; Sander, B., 2.
——, mineral resources.—**0**, Heim, Arnold, 4 ; Niggli, P. ; Schmidt, C., 1, 2.
——, stratigraphy.—**0**, Musy, M. ; **1**, Lory, P. ; **2**, Brockmann-Jerosch, H. ; Deecke, W., 4.
——, Tertiary.—**1**, Baumberger, E. ; **2**, Baumberger, E. ; Dietrich, W. O., 10 ; Rollier, L. ; Stehlin, H. G.
——, text-book.—**0**, **1** & **2**, Heim, Albert.
—— (Central).—**0**, Deecke, W., 2.
—— (N.), stratigraphy.—**1**, Buxtorf, A., 2; **2**, Leuze, J. ; Schalch, F., 3.

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—— (S.E.).—**0**, Staub, R., 1, 2.
—— (W.).—**0**, Girardin, P., 2.
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Sydenham (Vict.).—**1**, James, A. V. G.
Syenite, Dobrogea.—**2**, Cantuniari, S., 3.
——, Kenya.—**2**, Gregory, J. W.
——, Madagascar.—**0**, Lacroix, A., 7; **2**, Lacroix, A., 2, 3.
——, Norway.—**1**, Rekstad, J.
——, Rheinland.—**1**, Edel, G., 2; Halfmann, G. J.; **2**, Brauns, R., 13, 14.
——, Transvaal.—**2**, Shand, S. J., 2.
——, albite-mica-, S. Australia.—**1**, Browne, W. R.
——, augite-biotite-, Saxony. — **2**, Chirvinski, P., 3.
——, elæolite-, Portugal.—**2**, Kaiser, E.
——, hypersthene-, Norway. — **2**, Goldschmidt, V. M., 6.
——, nephelite-, New Jersey.—**2**, Aurousseau, M.
——, ——, Sweden.—**2**, Quensel, P.
——, ——, Transvaal.—**2**, Shand, S. J.
—— -porphyry, Vosges.—**1**, Buecking, H.
—— - ——, nephelite, Portuguese E. Africa.—**1**, Young, R. B.
'Syenoid,' the term. — **1**, Shand, S. J.
Sylvite.—**2**, Rinne, F., 11; Rózsa, M., 4.
—— -halite.—**2**, Rinne, F., 5.
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Symplektites.—**0**, Sederholm, J. J.
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Synchysite.—**0**, Aminov, G.
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——, Valais.—**0**, Oulianov, N.
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Syringothyris. — **0**, North, F. J.; Thomson, J. A., 6.
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Szeben (Transylvania).—**2**, Vendl, A.
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Taiera R. (N.Z.).—**0**, New Zealand, 5.
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Talc.—**0**, Hackl, O., 5; United States, 6, 8; **1**, Diller, J. S., 2; Imperial Mineral Resources Bureau, 19; **2**, Dœlter, C.; Foshag, W. F., 5.
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——, Canada.—**1** & **2**, Spence, H. S., 2.
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——, New Zealand.—**0**, Morgan, P. G., 2.
——, Styria.—**0**, Kittl, E., 3; **1**, Kittl, E., 2.
——, United States. — **1**, United States, 4, 9; **2**, United States, 11, 13.
——. *See also* Soapstone *&* Steatite.
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Talus.—**0**, Stiny, J., 2; **1**, Lehmann, O.
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Tambo (Queensl.).—**2**, Jensen, H. I., 4, 5.
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—— ——, stratigraphy.—**0**, Fourmarier, P., 7; Hennig, E., 1, 2; Krenkel, E.; Oppenheim, P., 4; **1**, Branca, W.; **2**, Reck, H., 2, 5, 7; Seward, A. C.
—— ——, tectonics.—**0**, Holmes, A., 3; Stigand, C. H.; **2**, Meyer, O. E.
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Taos Range (N. Mex.).—**1**, Gruner, J. W.

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Taplow (Bucks).—**2**, Treacher, Ll.
Taradale (Vict.).—**0**, Skeats, E.W., 4.
Taranaki (N.Z.).—**0**, Henderson, J., 2 ; **1**, Morgan, P. G., 2 ; **2**, Grange, L. I., 2 ; Marshall, P., 3 ; Morgan, P. G., 1, 2, 6.
Tarapacá (Chile).—**1**, Felsch, J.
Tararua Range (N.Z.).—**0**, Adkin, G. L., 2.
Tarbuttite.—**0**, Buttgenbach, H., 4.
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Taro R. area (Emilia).—**1**, Zuffardi, P., 1, 2.
Tarragona (Spain).—**0**, Kilian, W., 6 ; **1**, Vilaseca, S.
Taseko valley (B.C.).—**1**, Mackenzie, J. D., 1, 2.
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——, annual report.—**0**, **1** & **2**, Tasmania.
——, mineral resources.—**0**, Hills, L. ; Hitchcock, W. E. ; Reid, A. M., 2 ; Twelvetrees, W. H. ; **1**, Reid, A. M.
——, tin.—**1**, Gudgeon, C. W. ; Levings, J. H. ; **2**, Nœtling, F. ; Weston-Dunn, J. G.
——, water.—**1** & **2**, Nye, P. B.
'Tassello,' Istria.—**0**, Liebus, A.
Tassilis (Sahara).—**2**, Kilian, C. C. W., 3.
Tatarian, Europe (N.-Central).—**1**, Linstow, O. v.
Tatra Mts. (Krakow-Slovakia).—**1**, Passendorfer, E. ; Rabowski, F., 2 ; **2**, Morozewicz, J.; Passendorfer, E.
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Taunus Mts. (Nassau).—**0**, Fuchs, A. ; Schlossmacher, K. ; **1**, Fuchs, A. ; Schlossmacher, K., 1, 3 ; Winterfeld, F.
Taunusian, Belgium.—**0**, Dubois, J. ; **1**, Asselberghs, E., 5.
Taurus Mts. (Asia Minor).—**0**, Frech, F., 2 ; Oppenheim, P., 5.
Tavernola (Lombardy).—**1**, Salmojraghi, F., 4.
Tavoy (Burma).—**0**, Brown, J. C.
Tawhiti series, New Zealand.—**0**, Marshall, P., 3.
Taza (Morocco).—**1**, Gentil, L.
Te Puke (N.Z.).—**2**, Morgan, P. G.,10.
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Tectonics.—**1**, Haarmann, E. ; Lachmann, R. ; Willis, B. ; **2**, Lohest, M.
——, ancient.—**0**, Sander, B., 2.
——, correlation in.—**2**, Teisseyre, W.
——, earth's rotation &.—**1**, Quiring, H., 5.
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——, gravity anomalies &.—**0**, Ampferer, O., 13 ; **2**, Kossmat, F., 2.
——, igneous intrusions &.—**0**, Benson, W. N.
——, jointing &.—**1**, Bucher, W. H.
——, lunar & terrestrial.—**2**, Guébhard, A., 2.
——, magmatic earthquakes &.—**1**, Branca, W., 3.
——, maps.—**0**, Werveke, L. v., 3.
——, mechanics.—**0**, Mead, W. J.
——, mineral resources &.—**0**, Ziegler, V. ; **2**, Lachmann, R., 3 ; Stahl, A., 2.
——, mountains &.—**0**, Schmidt, W. ; Weithofer, K. A. ; **1**, Hobbs, W. H., 3 ; Taylor, F. B.
——, nomenclature.—**2**, Murgoci, G., 3.
——, teaching of.—**1**, Kemp, J. F.
——, volcanism &.—**0**, Lozinski, W. v., 2.
——. *See also* Cryptovolcanic structure, Faulting, *&c.*
Tegel. *See* Brickearths.
Teglie (Lombardy).—**1**, Bonomini, C.
Tehuantepec Isthmus area (Mexico). —**1**, Redfield, A. H., 2.
Tekapo, L. area (N.Z.).—**2**, Speight, R.
Tektite.—**1**, Goldschmidt, V. ; **2**, Berwerth, F. ; Suess, F. E., 1, 3 ; Tilley, C. E., 5.
Telerpeton.—**2**, Huene, F. v., 5.
Tellurium.—**2**, Beutell, A., 4.
Temnocheilus.—**1**, Mariani, E., 11.
Temperatures, crystal-angles &.—**2**, Rinne, F., 1, 12.
——, crystal-structure &.—**1**, Kôzu, S.
——, in earth's crust.—**1**, Willis, B.
——, of lava.—**2**, Malladra, A., 1, 2.
——, rock-expansion &.—**0**, Jutson, J. T., 2.
——, submarine.—**2**, Charcot, J. B.
——, underground.—**0**, Great Britain, 5.
——, ——, Alsace.—**0**, Werveke, L. v., 20.
——, ——, Belgium.—**1**, Renier, A., 3.
——, ——, Europe.—**1**, Hœfer, H. v., 2 ; Werveke, L. v.
——, ——, Great Britain.—**2**, Graham, J. I.
——, ——, New Zealand.—**0**, Farr, C. C.
——, ——, Romania.—**2**, Tănăsescu, I., 3.

Temperatures, underground, United States.—**0**, Darton, N. H., 6.
Tenasserim (Burma).—**1**, Heron, A. M., 2.
Tenby (Pembrokesh.).—**1**, Dixon, E. E. L.
Tenby museum (Pembrokesh.).—**0**, Leach, A. L.
Tennantite.—**2**, Pufahl, O.
Tennengebirge (Salzburg).—**0**, Fugger, E.; **2**, Lehmann, O.
Tennessee (U.S.A.).—**0**, Butts, C., 3; **1**, Grover, N. C., 2; Hall, B. M.; **2**, Glenn, L. C.
—— (——), Cretaceous.—**0**, Berry, E. W., 2, 12; Wade, B.
—— (——), Devonian-Ordovician.—**0**, Dunbar, C. O.; Raymond, P. E.; **1**, Dunbar, C. O.; **2**, Bassler R. S., 2.
Tentaculites-schists, Algeria. — **2**, Ehrmann, F., 2.
Tenterden (W. Austr.).—**0**, Blatchford, T., 5, 10.
Tephrite, Baden.—**2**, Meigen, W., 2.
——, Bohemia.—**0**, Senger, A.; **2**, Seemann, F.
Teratosaurus.—**2**, Huene, F. v., 3.
Terebellina.—**2**, Jaworski, E.
Terebra.—**1**, Vredenburg, E., 4.
Terebratula.—**0**, Hadding, A.; **1**, Caterini, F., 1, 2; **2**, Nielsen, K. B.
Terebridæ.—**1**, Vredenburg, E., 4.
Teredo.—**1**, Gagel, C., 7.
Terlago, L. (Trentino).—**0**, Blaas, J.
Terminal curvature, glaciation.—**0**, Travis, C. B.
—— moraines. *See* Moraines.
Ternate I. (D.E.I.).—**2**, Brouwer, H. A., 10.
Terpin hydrate.—**1**, Guild, F. N.
Terra Nova Bay area (Antarctica).—**2**, Debenham, F., 2; Smith, W. C., 3.
'Terra Nova' expedition, Antarctica.—**2**. Debenham, F., 1, 2; Rastall, R. H.; Smith, W. C., 2, 3; Woodward, A. S.
Terra rossa. *See* Red earths.
Terraces.—**0**, Gentil, L., 3.
——, Austria.—**0**, Nowak, E., 4; **1**, Hassinger, H.; Penck, A., 4; **2**, Penck, A., 3.
——, Carniola.—**0**, Ampferer, O., 12.
——, France.—**0**, Boisse de Black, Y.; Kessler, P., 2; Rolland, A.; **1**, Lamothe, L. de; Passemard, E.; Rutot, A., 1, 2.
——, Germany.—**0**, Henkel, L.; **1**, Ahlburg, J., 2; Fliegel, G., 4; Gœbel, F.; Grupe, O., 3; Hœppner, —; Kaunhowen, F., 2; Kirchberger, M.; Kranz, W., 2; Quaas, A., 2, 6; Wolff, W., 5; Zimmermann, E., II, 1, 7; **2**, Freudenberg, W.; Henkel, L.; Penck, A., 3.
——, Italy.—**1**, Feruglio, E.; **2**, Feruglio, E.; Wepfer, E., 2.
Terraces, Mediterranean area (W.).—**1**, Lamothe, L. de.
——, Meuse valley.—**2**, Van Baren, J.
——, Poland.—**1**, Korn, J.
——, Quebec.—**1**, Twenhofel, W. H.
——, Rhine Valley (Lower). — **0**, Gagel, C., 7; Quaas, A.; **1**, Jungbluth, F. A.; Krause, P. G., 3; Quaas, A., 8; **2**, Quaas, A., 2; Van Baren, J.
——, Sweden.—**0**, Carlzon, C., 2.
——, Tagus valley.—**2**, Roman, F.
——, United States.—**0**, Barrell, J.; **2**, Bryan, K., 2; MacClintock, P.
——, alluvial, Loire basin.—**1**, Chaput, E.
——, ——, Morocco.—**0**, Russo, P., 2; **1**, Passemard, E., 2.
——, marine, United States (E.).—**0**, Vaughan, T. W., 3.
——, Pleistocene, Nassau. — **1**, Lauterbach, W.
——, Quaternary, Belgium.—**1**, Rutot, A., 2.
——, ——, Iceland. —**1**, Bárdarson, G. G.
——, ——, earth-movements &.—**0**, Zeil, G.; **2**, Zeil, G., 2.
——, Tertiary, Rheinland.—**1**, Quaas, A., 3.
——. *See also* River - terraces, Strand-lines, *&c.*
Terrible, Mt. (Berne).—**1**, Buxtorf, A., 3.
Tertiary.—**0**, Dawkins, W. B.; **2**, Schuster, W.; Vaughan, T. W., 4, 6.
——, Africa (E.).—**0**, Ball, J.; Gregory, J. W., 5.
——, Alabama.—**0**, Hopkins, O. B., 3; **1**, Semmes, D. R.
——, Alaska.—**0**, Capps, S. R., 4; **2**, Brooks, A. H.; Richarz, P. S., 3.
——, Albania.—**1**, Bourcart, J., 2; Nowak, E.; **2**, Nowak, E., 5.
——, Alps.—**1**, Dollfus, G. F., 6.
——, Argentina.—**0**, Frenguelli, J., 1, 3; **1**, Roth, S.; Rovereto, G., 2.
——, Asia.—**0**, Vredenburg, E. W., 6.
——, —— (E.).—**2**, Smith, W. D., 2.
——, Asia Minor.—**0**, Oppenheim, P., 6; **1**, Fliegel, G., 5.
——, Australia.—**2**, Richards, H. C.; Speight, R., 4.
——, Austria.—**0**, Dreger, J.; Teppner, W. v.; Vetters, H.; **1**, Mohr, H.; Spitz, A.; **2**, Stiny, J., 6; Winkler, A.
——, Belgium.—**0**, Anten, J., 2; Fourmarier, P., 5; **1**, Anon., 5; Fourmarier, P., 6; Rutot, A., 2; **2**, Halet, F.; Leriche, M., 2.
——, Borneo (British).—**2**, Redfield, A. H.
——, Brandenburg.—**1**, Klautzsch, A., 5; **2**, Linstow, O. v., 2.
——, Burma.—**0**, Cotter, G. de P., 2; **1**, Vredenburg, E., 2; **2**, Stamp, L. D., 6.

Tertiary, California.—**0**, Kew, W. S. W.; Pack, R. W.; Smith, J. P.; Stock, C., 3; **2**, Rademacher, R.
——, Caribbean area.—**0**, Vaughan, T. W., 5.
——, Carpathians.—**1**, Teisseyre, W.
——, Caucasus.—**2**, Thompson, A. B.
——, Central America.—**2**, Vaughan, T. W., 3.
——, Colorado.—**0**, Bastin, E. S.
——, Czechoslovakia.—**0**, Moscheles, J., 2; Petrascheck, W., 4, 5; Rzehak, A.; Želízko, J. V., 4, 11; **1**, Ferenczi, S., 2; Vigh, J., 2; **2**, Liebus, A., 2.
——, Dalmatia.—**0**, Kerner, F. v., 7; **2**, Kerner, F. v., 2.
——, Denmark.—**1**, Madsen, V.; Milthers, V., 2.
——, Dutch E. Indies.—**0**, Abendanon, E. C.; Brouwer, H. A., 2; Martin, K., 4; Oppenoorth, W. F. F., 1, 2; Van Es, L. J. C.; **1**, Frijling, H.; Krol, L. H.; Loth, J. E.; Reijzer, J.; Vredenburg, E., 3; Ziegler, K. G. J.; **2**, Brouwer, H. A., 13; Jezler, H.; Martin, K.; Redfield, A. H.; Vaughan, T. W., 2; Wanner, J., 3.
——, E. Prussia.—**1**, Meyer, E., 4.
——, 'Égéide.'—**2**, Arabu, N., 2.
——, Egypt.—**0**, Arldt, T.; Stromer, E., 2.
——, England (W.).—**2**, Boswell, P. G. H., 9.
——, Europe.—**0**, Grabau, A. W., 4; **2**, Petrascheck, W., 3; Wenz, W., 3.
——, France.—**0**, Herrmann, A.; Kerforne, F., 4, 5, 7, 8; Kessler, P., 2; Werveke, L. v., 20; **1**, Gosselet, J.; Milon, Y.; Piroutet, M.; Repelin, J.; Termier, P., 2, 3; **2**, Collin, L., 2; Dollfus, G. F.; Ferronnière, G., 4; Glangeaud, P.
——, French Indo-China.—**2**, Colani, M., 2.
——, French W. Africa.—**0**, Hubert, H., 2.
——, Hesse-Nassau. — **0**, Schottler, W., 2, 6; **1**, Ahlburg, J., 2; Blanckenhorn, M., 1, 6; Kaiser, E., 3; Leppla, A., 6.
——, Holland.—**2**, Halet, F.
——, Hungary.—**1**, Kormos, T., 2; Noszky, E., 1, 3; Schréter, Z., 3, 4; Tæger, H., 2.
——, Idaho.—**0**, Mansfield, G. R.; **1**, Buwalda, J. P.
——, India (N.).—**0**, Pascoe, E. H.; Pilgrim, G. E.; Pinfold, E. S.; **1**, Pascoe, E. H.; Preiswerk, H.; Vredenburg, E., 3.
——, Italy.—**0**, Fabiani, R., 6, 7; Stefanini, G.; **1**, Chelussi, I., 1, 4, 6, 7; Patrini, P.; Sangiorgi, D.; Taramelli, T., 2; **2**, Dal Piaz, G., 3; Fabiani, R., 3, 8; Kranz, W.; Oppenheim, P.; Principi, P., 3.
Tertiary, Japan.—**2**, Yabe, H.
——, Louisiana.—**0**, Matson, G. C.
——, Mainz Basin. — **0**, Wenz, W., 1, 2.
——, Maryland.—**0**, Little, H. P.
——, Mexico.—**2**, Heim, Arnold, 2; Wittich, E., 2.
——, Montana.—**0**, Woolsey, L. H.
——, Morocco (Sp.).—**1**, Valle, A. del.
——, Nevada.—**0**, Knopf, A., 5.
——, New Guinea.—**2**, Feuilletau de Bruyn, W. K. H.
——, New Mexico.—**0**, Semmes, D. R., 2; **1**, Bauer, C. M.; Ferguson, H. G.
——, New South Wales.—**1**, Walcott, R. H.
——, New Zealand.—**0**, Bartrum, J. A., 3; Marshall, P., 1, 3–5; Morgan, P. G., 7; Speight, R.; Thomson, J. A., 1–3, 5; Uttley, G. H., 1–3; **1**, Henderson, J., 3, 5; Suter, H.; **2**, Marshall, P., 3; Speight, R., 1, 4; Vaughan, T. W.
——, Oceania.—**2**, Vaughan, T. W., 2.
——, Oldenburg.—**0**, Weingærtner, R. M.
——, Panama.—**0**, Vaughan, T. W., 5.
——, Pembrokeshire.—**1**, Dixon, E. E. L.
——, Persia.—**1**, Tipper, G. H.
——, Peru.—**0**, Woods, H., 2; **1**, Bosworth, T. O.; **2**, Bosworth, T. O.; Marsters, V. F.
——, Philippine Is.—**2**, Dickerson, R. E., 1, 3; Smith, W. D., 1–3.
——, Poland.—**1**, Teisseyre, W., 2.
——, Pomerania.—**0**, Hess von Wichdorff, H., 2.
——, Portuguese E. Africa. — **0**, Holmes, A., 9.
——, Rheinland.—**0**, Lœscher, W., 2; **1**, Fliegel, G., 4; Meyer, H. L. F., 3; Quaas, A., 3.
——, Rhine Valley.—**0**, Quaas, A.
——, Rhön.—**1**, Grupe, O., 4.
——, Romania.—**0**, Halaváts, G. v.; **1**, Szádeczky, J. v.; **2**, Athanasiu, S. C., 1, 2; Botez, G., 3, 4; Grozescu, H., 3, 4; Macovei, G.; Popescu-Voitesti, I., 4; Preda, D. M., 3, 4.
——, Sea of Marmora area.—**0**, Arabu, N.; **1**, Arabu, N., 1–3.
——, Silesia.—**0**, Michael, R., 2; **1**, Friedensburg, F.; Kræusel, R., 1–3.
——, S. America (W.).—**2**, Berry, E. W.
——, S. Australia.—**0**, Howchin, W., 2; **1**, Howchin, W.
——, Spain. — **1**, Gavala, J., 2; Gomez, J. R.; **2**, Joly, H., 3; Schlosser, M.
——, Swabia.—**2**, Dietrich, W. O., 10; Wenz, W., 2.

Tertiary, Switzerland.—**0**, Gutzwiller, A., 1, 2 ; Lugeon, M. ; Muehlberg, F. : **1**, Elber, R. ; Lehner, E. ; **2**, Amsler, A. ; Arbenz, P. ; Schalch, F., 2.

——, Tanganyika.—**0**, Hennig, E. ; Oppenheim, P., 4.

——, Tasmania.—**0**, Skeats, E. W., 7.

——, United States (S.E.).—**2**, Vaughan, T. W., 3.

——, —— —— (W.).—**1**, Clark, B. L., 2, 3 ; **2**, Clark, B. L.

——, Utah.—**0**, Winchester, D. E.

——, Venezuela.—**2**, Berry, E. W., 15.

——, Victoria.—**1**, Walcott, R. H. ; **2**, Hart, T. S.

——, W. Indies.—**0**, Berkey, C. P., 2 ; Cooke, C. W., 2 ; Hodge, E. T. ; Hubbard, B. ; Reeds, C. A. ; Semmes, D. R. ; Vaughan, T. W., 4 ; **1**, Douvillé, H., 4 ; Milner, H. B., 3 ; **2**, Trechmann, C. T. ; Vaughan, T. W., 3, 5.

——, Westphalia.—**1**, Gœbel, F.

——, Württemberg.—**0**, Dittus, W. ; Moos, A. ; **2**, Klæhn, H.

——, Wyoming.—**1**, Bowen, C. F.

——, Yunnan.—**2**, Colani, M., 2.

—— faunas.—**0**, Vredenburg, E. W., 6 ; **1**, Vaughan, T. W.

—— gravels, Aberdeenshire. — **1**, Flett, J. S., 2.

——. *See also* Flysch, Oligocene, *&c.*

Tertiary-Cretaceous boundary. — **1**, Matthew, W. D., 2 ; Seward, A. C., 2.

Teruel (Spain).—**1**, Gavala, J. ; **2**, Gil, M. P. ; Joly, H.

Tessin (Switzerland).—**0**, Henny, G. ; Preiswerk, H., 1, 2 ; Renz, C. ; **1**, Mariani, E. ; Preiswerk, H., 2 ; Staub, R., 7 ; **2**, Mueller, F. P., 4 ; Preiswerk, H. ; Seitz, O.

Testudo.—**0**, Siebenrock, F.

Tetbury (Glos).—**2**, Richardson, L., 1–3.

Tetracoralla.—**0**, Robinson, W. I.

Tetradium.—**0**, Chapman, F., 4.

Tetragraptus.—**0**, Keble, R. A.

Tetrahedrite.—**0**, Shannon, E. V., 12 ; **2**, Shannon, E. V., 5 ; Vesely, V.

Tetrarhynchia.—**2**, Buckman, S. S., 3.

Teupitz (Brandenburg).—**1**, Fliegel, G., 3.

Teuthopsis.—**1**, Crick, G. C., 2.

Teutloporella.—**1**, Baretti, A.

Teutoburger Wald (Westphalia).—**0**, Bærtling, R., 3 ; **1**, Kraiss, A.

Tevere valley (Italy).—**1**, Oddone, E., 2.

Teviot R. area (Roxburghsh.).—**0**, McRobert, R. W.

Texada I. (B.C.).—**1**, Dolmage, V.

Texas (U.S.A.).—**1**, Miser, H. D., 2 ; Powers, S., 2 ; **2**, Dobbin, C. E. ; Hopkins, O. B. ; Powers, S. ; Ross ,C. S. ; Udden, J. A.

Texas (U.S.A.), meteorites.—**0**, Merrill, G. P., 2, 3 ; **2**, Merrill, G. P., 5–7 ; Udden, J. A., 2.

—— (——), mineral resources.—**0**, Ashley, G. H., 3 ; Udden, J. A. ; United States, 5, 6, 8 ; **1**, Shaw, E. W., 2 ; United States ; **2**, United States, 8, 10.

—— (——), petroleum. — **0**, Bosworth, T. O. ; Hager, D. ; Matson, G. C., 4.

—— (——), salt-domes.—**0**, Barton, D. C. ; Hopkins, O. B., 1, 2 ; Powers, S., 2.

—— (——), stratigraphy.—**0**, Stephenson, L. W. ; **1**, Goldman, M. I., 2 ; **2**, Berry, E. W., 16 ; Moore, R. C., 2, 4.

—— (——), water.—**0**, Grover, N. C., 3–5.

Text-books, European archæology.—**2**, Macalister, R. A. S.

——-——, European prehistory.—**2**, Burkitt, M. C.

——-——, fossil man. — **1**, Boule, M. ; **2**, Werth, E.

——-——, gem-stones.—**2**, Streeter, E. W.

——-——, geology.—**1**, Pirsson, L. V., 2 ; **2**, Coleman, A. P., 5 ; Kayser, E., 1–3.

——-——, Indian geology. — **0**, Wadia, D. N., 3.

——-——, mineral chemistry.—**0**, Dœlter, C., 2 ; **1**, Dœlter, C. ; **2**, Dœlter, C., 5.

——-——, mineralogy.—**2**, Dana, E. S. ; Lewis, J. V.

——-——, ore-deposits. — **2**, Beyschlag, F., 12 ; Krusch, P.

——-——, palæobotany.—**1**, Scott, D. H.

——-——, palæontology.—**0**, Davies, A. M. ; Walther, J., 5 ; **2**, Walther, J.

——-——, petrography.—**2**, Rosenbusch, H.

——-——, —— of sediments.—**2**, Milner, H. B.

——-——, petroleum.—**0**, Craig, E. H. C.

——-——, platinum.—**0**, Duparc, L., 5.

——-——, seismology.—**2**, Davison, C.

——-——, S. Australian geology.—**0**, Howchin, W., 6.

——-——, Swiss geology.—**0**, **1** & **2**, Heim, Albert.

——-——, underground water.—**1**, Martel, E. A.

Texture, rocks.—**0**, Sander, B., 5 ; Wright, F. E. 2.

Thabor, Mont-. *See* Mont-Thabor.

Thabyu (Burma).—**1**, Heron, A. M.

Thal (Thuringa).—**1**, Zimmermann, E., I, 3.

Thallophyta.—**2**, Kidston, R., 2.

Thames Valley.—**0**, Moir, J. R.

Thanet beds, London Basin.—**0**, Baker, H. A., 2.
Tharau (E. Prussia).—**1**, Hess von Wichdorff, H.
Thaumasite.—**0**, Foshag, W. F., 4; Wherry, E. T.; **1**, Merwin, H. E.; **2**, Holden, E. F.
Thaumatosaurus.—**2**, Huene, F. v., 7.
Thayetmyo (Burma).—**2**, Cotter, G. de P.
Thecodontia.—**2**, Huene, F. v., 10, 12.
Theralite, Kola Penin.—**0** & **1**, Brenner, T.
Therapsida.—**2**, Haughton, S. H., 2.
Theriodontia.—**1**, Watson, D. M. S.
Thermal expansion, minerals & rocks. —**1**, Schulz, K.; **2**, Schulz, K., 2.
—— springs. *See* Springs.
—— water. *See* Water.
Therocephalia.—**0**, Broom, R.
Theromorpha.—**0**, Watson, D. M. S.; **1**, Gilmore, C. W., 3; Watson, D. M. S.
——, Karroo. — **0**, Broom, R.; Haughton, S. H.; **2**, Broom, R.; Haughton, S. H., 2.
——, Permian.—**0**, Gilmore, C. W., 5; Gregory, W. K.; Huene, F. v., 2; **1**, Stauffer, C. R., 2.
——, Trias.—**0**, Das Gupta, H. C., 3; **2**, Broili, F., 5; Huene, F. v., 1, 4, 5.
Thévalles (Mayenne).—**2**, Dollfus, G. F., 6.
Théziers (Gard).—**2**, Depape, G.
Thiersee (Tyrol).—**2**, Ampferer, O., 5.
Thieu (Hainault).—**2**, Cornet, J., 2.
Thines valley (Hainault).—**2**, Leriche, M., 3.
Tholeiitic basalt. *See* Basalt.
Tholemys.—**1**, Andrews, C. W.
Thônes (Haute-Savoie).—**2**, Moret, L., 2.
Thorium, lead &.—**0**, Holmes, A., 15.
Thorium minerals.—**0**, United States, 5, 9.
Thörl (Styria).—**1**, Spengler, E., 2.
Thortveitite.—**0**, Lacroix, A., 5; **2**, Boulanger, C.
Three Springs (W. Austr.).—**0**, Feldtmann, F. R.
Thrust-faulting.—**0**, Quirke, T. T.
—— -plane, Kashmir. — **0**, Middlemiss, C. S., 2.
Thrusts.—**0**, Ampferer, O., 5; Lozinski, W. v., 2; **2**, Lawson, A. C.
——, Betic Cordillera.—**1**, Fallot, P.
——, France (S.).—**1**, Termier, P., 2, 3.
——, Scandinavia.—**1**, Holtedahl, O., 4.
——. *See also* Overthrusts.
Thuin (Hainault).—**0**, Dubois, J.
Thun, L. area (Berne).—**1** & **2**, Beck, P.
Thunder Bay area (Ont.).—**2**, Tanton, T. L., 1, 3.
Thurgau (Switzerland). *See* Constance, L. area.
Thüringer Wald (Germany). — **0**, Wichdorff, H. v.; **1**, Haase, E.
Thuringia (Germany).—**0**, Zimmermann, E., 1, 2; **1**, Bœhne, E.; Naumann, E., 2, 5; Weber, K. A.; **2**, Hundt, R., 4; Zimmermann, E., 1.
—— (——), igneous & metamorphic rocks.—**0**, Naumann, E.; **1**, Haase, E.; Theobald, H.; Zimmermann, E., 1, 3; **2**, Freyberg, B. v., 2; Ullrich, E.; Utendœrfer, A.
—— (——), iron.—**1**, Bœhne, E., 2; **2**, Haf, H.; Russwurm, P.
—— (——), physiography.—**0**, Wichdorff, H. v.; **1**, Hess von Wichdorff, H., 3; Naumann, E., 12.
—— (——), Pleistocene.—**0**, Jentzsch, A., 5; Werth, E., 3; **1**, Stoller, J., 7.
—— (——), stratigraphy.—**1**, Freyberg, B. v.; Naumann, E.; Philippi, E.; Platt, H.; **2**, Drude, O.
—— (——), tectonics.—**0**, Linstow, O. v., 2; **1**, Michael, P.; Naumann, E., 7.
—— (——), Trias.—**1**, Adolf, G.; Heeger, W.; Kalkowsky, E., 2; Kindermann, C.; Naumann, E., 3, 8; Scheibe, R.; **2**, Adolf, G.; Freyberg, B. v.
Thuringite, Czechoslovakia. — **2**, Kretschmer, F., 4.
Tian-Shan (Turkestan).—**0**, Distel, L.
Tiaracerithium.—**0**, Charpiat, R., 2; **1**, Charpiat, R., 4, 5.
Tiber. *See* Tevere.
Tibet.—**0**, Douvillé, H., 3; **1**, Douvillé, H., 17. *See also* Himalayas.
Tibet (Chinese).—**2**, Gregory, J. W., 10; Ward, F. K.
Ticholeptus.—**0**, Loomis, F. B.
Tidal lands, reclamation of.—**2**, Case, G. O.
Tierra del Fuego.—**0**, Bodman, G.
Tiger I. (Kwangtung).—**0**, Wilckens, O., 7.
Tiger Kloof (Cape Prov.).—**1**, Jones, N.
Tilburstow Hill (Surrey).—**1**, Stamp, L. D., 4; **2**, Stamp, L. D., 2.
Till, United States.—**0**, Kay, G. F., 2; Lane, A. C., 3; **1**, Sayles, R. W.; **2**, Kay, G. F., 3. *See also* Boulder-clay.
Tillite, Bechuanaland Protectorate.—**2**, Maufe, H. B., 2.
——, British Columbia.—**2**, Shepard, F. P.
——, Congo Belge.—**1**, Grosse, E.
——, Quebec.—**2**, Sayles, R. W., 2.
—— -like conglomerate, Norway (S.). —**2**, Holtedahl, O., 6.
Tilting, New Zealand.—**2**, Adkin, G. L.; Cotton, C. A.
Timaru (N.Z.).—**0**, Wild, L. J.
Timavo R. (Istria).—**1**, Salmojraghi, F., 3.

Time, geological.—**0**, Termier, P., 5 ; **1**, Holtedahl, O., 2 ; **2**, Lotze, R.
——, ——, coals &.—**2**, Lewis, H. P.
——, ——, measurement of. — **0**, Holmes, A., 2 ; **2**, Diener, C., 7.
——, ——, sedimentation &. — **1**, Udden, J. A.
——, ——. *See also* Geochronology.
—— -scale, Swedish.—**1**, Geer, G. de, 1, 2.
Timiskaming, L. area (Ont.).—**0**, Hume, G. S.
Timor.—**1**, Haaniel, C. A. ; Welter, O. A., 1, 2 ; **2**, Brouwer, H. A., 2 ; Imdahl, H. ; Wanner, C. ; Welter, O. A.
Timor archipelago.—**2**, Krumbeck, L., 3.
Tin.—**0**, Emmons, W. H. ; **1**, Brown, J. C., 5 ; Simmersbach, B., 5 ; **2**, Jones, W. R.
——, Alaska.—**2**, United States, 8, 10, 12.
——, Bohemia.—**0**, Beck, R. ; **1**, Frieser, A.
——, Bolivia.—**0**, Davy, W. M. ; **1**, Brehm, H. ; Singewald, J. T., *fil.*
——, British Empire.—**1**, Penzer, N. M.
——, Burma.—**0**, Brown, J. C., 5.
——, Cornwall.—**0**, Fern, J. B.
——, Devon.—**1**, MacAlister, D. A.
——, Dutch E. Indies.—**0**, Jongh, C. A. de ; Van Lohuizen, H. J. ; **2**, Brouwer, H. A., 8.
——, Malaya.—**1**, Scrivenor, J. B., 1, 3, 4 ; **2**, Romang, M. ; Simmersbach, B., 11 ; Willbourn, E. S.
——, New South Wales.—**0**, Harper, L. F., 1, 3.
——, Nigeria.—**0**, Lush, F. M. ; **1**, Falconer, J. D., 1, 2 ; Reinheimer, S. ; **2**, MacLachlin, D. K. F. ; Whitehead, P. W.
——, S. Africa.—**1**, Wagner, P. A., 5 ; **2**, Krige, A. V.
——, Tasmania.—**0**, Hitchcock, W. E. ; **1**, Gudgeon, C. W. ; Levings, J. H. ; **2**, Nœtling, F. ; Weston-Dunn, J. G.
——, Uganda.—**1**, Simmons, W. C., 2 ; Wayland, E. J., 17.
——, United States.—**0**, Keith, A. ; Knopf, A. ; United States, 4, 6, 8 ; **2**, Hill, J. M. ; United States, 8, 10, 12.
——, Victoria.—**0**, Kenny, J. P. L., 5, 6 ; **2**, Kenny, J. P. L., 4.
——, W. Australia.—**0**, Talbot, H. W. B., 6.
——, crystals.—**1**, Spencer, L. J. ; **2**, Muegge, O., 9.
——, world's production & resources. —**0**, Davies, G. M. ; **2**, Great Britain, 14.
——. *See also* Cassiterite.
Tin arsenide.—**1**, Spencer, L. J.
—— mining, E. Indies. — **2**, Schreiber, F., 2 ; Schuurman, J. A.
Tinguaite, Montana.—**2**, Kemp, J. F., 7.
——, Rheinland.—**2**, Brauns, R., 13.
Tintenbar (N.S.W.).—**0**, Morrison, M., 6.
Tintic (Utah).—**0**, Lindgren, W., 5.
Tipulidæ.—**0**, Meunier, F., 3 ; **2**, Meunier, F.
Titaniferous iron. *See* Iron.
Titanite.—**0**, Artini, E. ; **1**, Bianchi, A. ; Boeris, G., 2 ; **2**, Johnsen, A., 11.
Titanium.—**2**, United States, 8, 10.
—— -biotite. *See* Biotite.
Titanium minerals.—**0**, Emmons, W. H. ; Lacroix, A., 6.
Titanohyrax.—**2**, Matsumoto, H.
Titanolivine.—**0**, Zambonini, F.
Titanomagnetite.—**0**, Lacroix, A., 6.
Titanotheriidæ.—**0**, Osborn, H. F., 5.
Tithonian, Campania.—**0**, Parona, C. F.
——, Isère.—**0**, Reboul, P.
Tlalpujahua (Mexico).—**2**, Flores, T.
Toarcian.—**2**, Monestier, J.
——, France.—**1**, Monestier, J. ; Piroutet, M., 3.
Toba L. area (Sumatra).—**0**, Klein, W. C.
Toby, Mt. (Mass.).—**1**, Loomis, F. B.
Toce R. area (Piedmont).—**2**, Preiswerk, H.
Tœrnebohmite.—**1**, Wherry, E. T., 5.
Tokomaru (N.Z.).—**2**, Ongley, M.
Tolovana (Alaska).—**0**, Mertie, J. B., *fil.*
Tolypella.—**1**, Reid, C.
Tomistoma.—**0**, Boulenger, G. A. ; Joleaud, L., 2 ; **2**, Del Vecchio, C.
Tomsk (Siberia).—**2**, Goudkoff, P. P., 3.
Tømten (Norway).—**2**, Kiær, J., 5.
Tonalite, Dobrogea. — **2**, Rotman, D., 2.
——, Lombardy.—**1**, Cornelius, H. P.
Tongking (Fr. Indo-China).—**2**, Colani, M., 2 ; Dussault, L., 3, 4 ; Jacob, C. 1, 5, 6 ; Mansuy, H., 7, 8.
—— (——), Mesozoic-Palæozoic.—**0**, Mansuy, H., 1, 3 ; **2**, Bourret, R. ; Mansuy, H., 1, 2, 10–12.
—— (——), tectonics.—**0**, Lantenois, H. ; **2**, Bourret, R., 2 ; Jacob, C., 3, 4.
Tongrian, Imbros I.—**2**, Ktenas, A.
Tonopah (Nev.).—**0**, Bastin, E. S., 2.
Toongabbie (Vict.).—**2**, Ower, L. H., 2.
Topaz.—**0**, Shannon, E. V., 13 ; **1**, Arlt, H. ; Honess, A. P. ; **2**, Siedel, P.
Toradja land (Celebes).—**1**, Reijzer, J.
Torbernite.—**0**, Hallimond, A. F. ; **1**, Bellini, R., 3.
Torgnon (Piedmont).—**0**, Sacco, F., 33.
Torlessia.—**2**, Jaworski, E.

Torquay (Devon).—**0**, Reed, F. R. C., 3. *See also* Kent's Cavern.
Torquay (Vict.).—**2**, Chapman, F., 2.
Torrens limestones, S. Australia.—**0**, Howchin, W.
Torrenthorn (Bernese Alps). — **0**, Lugeon, M.
Torridonian, Argyll.—**2**, Jehu, T. J.
Torsion-balance.—**0**, Tams, E. ; **1**, Kœvestligethy, R. de, 1, 2 ; **2**, Schumann, R., 1, 2.
Tortona (Piedmont).—**1**, Patrini, P.
Tortonian, Valencia.—**2**, Gignoux, M.
——, Wallachia.—**2**, Ionescu-Argetoaia, I., 6 ; Popescu-Voiteşti, I., 4 ; Protescu, O., 5.
Tortugas (Fla.).—**0**, Field, R. M.
Tour d'Ai (Vaud).—**0**, Jeannet, A.
Touraine (France).—**2**, Dollfus, G. F.
Tourmaline.—**1**, Arlt, H. ; Holmquist, P. J., 9 ; **2**, Bœke, H. E., 8 ; Cathrein, A. ; Grill, E., 2 ; Schlossmacher, K. ; Schulz, K. ; Siedel, P. ; Tertsch, H., 2.
—— -rocks, Liége.—**2**, Anten, J., 3.
Tournai (Hainault).—**2**, Camerman, M. C.
Towcester (Northants).—**1**, Richardson, L.
Toxodon.—**1**, Roxo, M. G. de O.
Toya, L. (Japan).—**0**, Omori, F., 4.
Trachelosaurus.—**1**, Broili, F., 3.
Trachydolerite, Hungary.—**1**, Mauritz, B.
Trachyspatagus. — **1**, Checchia-Rispoli, G., 3.
Trachyte, Angola—**0**, Holmes, A., 4.
——, Ascension I.—**2**, Daly, R. A.
——, Pembrokeshire.—**2**, Part, G. M.
——, Rheinland.—**1**,Brauns, R., 4 ; Hœpfner, A.
——, Savoie.—**1**, Termier, P., 6.
——, Venetia.—**1**, Maddalena, L., 3.
——, ægirite-, Portuguese E. Africa. —**0**, Holmes, A., 9.
——, phonolitic, Kenya.—**2**, Gregory, J. W.
——, soda-, Transvaal.—**2**, Shand, S. J., 2.
—— -tuff. *See* Tuffs.
Trachytoid-phonolite. *See* Phonolite.
Tracks, amphibian.—**0**, Walther, J., 4 ; **2**, Martin, H. T., 2.
——, animal.—**2**, Raymond, P. E., 2.
——, deinosaurian, Cretaceous.—**1**, Ballerstedt, M. ; **2**, Wrather, W. E.
——, gastropod, Carboniferous.—**2**, Powers, S., 3.
——, piscine.—**0**, Dœrpinghaus, W. T., 2.
——, plant.—**2**, Beck, R., 2.
——, reptilian.—**1**, Watson, D. M. S., 4; **2**, Wanner, H. E.
——, vertebrate.—**0**, Lull, R. S., 3 ; **1**, Ballerstedt, M., 2.
——, worm, Devonian.—**2**, Galloway, J. J., 3.
Train valley (Brabant).—**1**, Leriche, M.
Tramigna valley (Venetia).—**0**, Fabiani, R.
Transcaspia.—**2**, Thompson, A. B.
Transcaucasia.—**0**, Novarese, V., 2 ; **2**, Palibin, J. W.
Transgressions, Argentina.—**1**, Roth, S.
——, Brittany.—**2**, Ferronnière, G., 2.
——, England.—**2**, Kitchin, F. L.
——, Europe.—**0**, Deecke, W. ; **1**, Linstow, O. v., 10.
——, Germany.—**1**, Bærtling, R., 4 ; Freyberg, B. v. ; **2**, Gœbel, F.
Transjordania.—**2**, Dienemann, W.
Translation-gliding, crystals. — **2**, Johnsen, A., 1, 3, 13 ; Muegge, O., 12 ; Veit, K.
Transportation, fluvial.—**0**, Hewitt, W., 3 ; Schuermann, E. ; **2**, Portocarrero, J. N.
——, by ice.—**0**, Debenham, F. ; Stark, J.
Transvaal.—**0**, Hall, A. L. ; Humphrey, W. A. ; Trevor, T. G. ; **1**, Du Toit, A. L., 4 ; Mellor, E. T. ; Pijper, C. ; Pirow, H. ; Wagner, P. A., 3 ; **2**, Mellor, E. T. ; Wagner, P. A.
——, coalfields.—**2**, Mellor, E. T., 3 ; Trevor, T. G. ; Wybergh, W. J.
——, geology.—**1**, Kynaston, H. ; **2**, Hatch, F. H., 2 ; Mellor, E. T., 2 ; Rogers, A. W., 1, 3.
——, mineral resources.—**0**, Anon., 18 ; Hall, A. L., 2 ; Trevor, T. G., 2 ; **1**, Hall, A. L. ; Wagner, P. A., 4, 5 ; **2**, Hall, A. L., 3, 4.
——, petrology.—**2**, Hall, A. L., 5 ; Shand, S. J., 1, 2.
——, vanadium.—**1**, Ferguson, M. ; Wagner, P. A., 6 ; **2**, Fergusson, M.
Transvaal system, Transvaal.—**2**, Wagner, P. A.
Transylvania (Romania).—**0**, Kadić, O., 2 ; Pálfy, M. v., 2 ; **1**, Bányai, J., 2 ; Grengg, R., 2 ; Liffa, A. ; Lœw, M. ; Martonne, E. de ; Pantó, D. ; Papp, K. v. ; Szádeczky, J. v. ; Wachner, H.
—— (——), geology.—**0**, Jekelius, E., 2 ; Kormos, T. ; Lóczy, L. v. ; Pálfy, M. v. ; Papp, K. v. ; Tietze, E. E. A., 9 ; Wachner, H. ; **1**, Halaváts, G. v., 2, 3 ; **2**, Martonne, E. de, 2.
—— (——), Mesozoic.—**0**, Lóczy, L. v., *fil* ; Muecke, K. v. ; **1**, Jekelius, E., 1, 2 ; Nopcsa, F. ; Papp, K. v., 4 ; Vadász, M. E., 4 ; **2**, Nopcsa, F.
—— (——), mineral resources.—**0**, Beyschlag, F. ; Rozlozsnik, P. ; **1**, Anon., ; Bányai, J. ; Hœfer, H. v., 4 ; Rozlozsnik, P., 5 ; Xántus, J. ; Zimányi, K.
—— (——), petrography.—**0**, Horváth, B. v. ; Szentpétery, S. v., 1, 2 ; **1**, Szentpétery, S. v. ; **2**, Mœckel, K.

Transylvania (Romania), soils.—**0**, Ballenegger, R., 2 ; Timkó, E., 2 ; Treitz, P. ; **1**, Ballenegger, R., 3 ; Timkó, I., 2, 3 ; Treitz, P., 2, 3.
—— (——), stratigraphy.—**1**, Halaváts, G. v. ; Horusitzky, H., 2 ; Jekelius, E., 3 ; Vadász, M. E., 2 ; Wachner, H., 2, 3 ; Zalányi, B., 4.
—— (——), Tertiary.—**0**, Halaváts, G. v. ; **1**, Papp, K. v., 3 ; Zalányi, B., 2.
—— (——), volcanic rocks & ore-deposits.—**1**, Pálfy, M. v., 4, 6.
—— (——). *See also* Hunyad & Szeben.
Trap, Connecticut.—**0**, Shannon, E. V., 4.
——, Hesse.—**1**, Schauf, W.
——, India.—**0**, Hallowes, K. A. K. ; Whitney, W. B. ; **2**, Washington, H. S., 8.
Trapa.—**0**, Malmstrœm, C.
Traprain Law (Haddingtonsh.).—**2**, MacGregor, A. G.
Trass.—**1**, Brauns, R., 2 ; **2**, Brauns, R., 13.
Traunsee (Upper Austria).—**0**, Geyer, G., 4.
Trauntal (Upper Austria). — **0**, Spengler, E., 2.
Travancore (India).—**0**, Chacko, I. C., 1–4 ; Iyer, K. R. K. ; Tipper, G. H., 3 ; **1**, Stuart, M., 2.
Travertine.—**0**, Shearsby, A. J.
——, Germany.—**0**, Geyer, D. ; **1**, Sommermeier, L.
——, Lazio.—**0**, Meli, R., 9.
Trees, in Coal Measures.—**2**, Harsée, H.
Treffurt (Prussia).—**0**, Freyberg, B. v.
Treignac (Corrèze).—**0**, Couégnas, J.
Treis (Hesse).—**1**, Haupt, O.
Tremataspis.—**0**, Wiman, C., 2.
Trematosaurus.—**0**, Seidlitz, W. v. ; **2**, Drevermann, F. ; Huene, F. v., 8.
Tremblay (Ille-et-Vilaine).—**2**, Collin, L., 3.
Tremolite.—**1**, Miller, W. J., 3.
—— -schists. *See* Schists.
Trench, British Columbia.—**1**, Schofield, S. J.
Trentino (Italy). — **0**, Blaas, J. ; Fabiani, R., 6 ; Hradil, G. ; Kerner, F. v., 13 ; Stiny, J., 4 ; Tietze, E. E. A., 11 ; **1**, Stella, A. ; **2**, Canaval, R., 2 ; Cornelius, H. P., 8 ; Fabiani, R., 5.
—— (——), geology.—**0**, Nowak, E., 2 ; Sacco, F., 3 ; Sander, B., 3 ; Schwinner, R., 2, 3 ; **1**, Sander, B., 2 ; Spitz, A., 2 ; **2**, Dal Piaz, G., 4.
—— (——), glaciers.—**0**, Dœhler, K.; Klebelsberg, R. v., 1, 5, 6 ; Meusburger, K., 1–3.
—— (——), Mesozoic.—**0**, Arthaber, G. v. ; Klebelsberg, R. v., 4 ; **1**, Pia, J., 2.
Trentino (Italy), tectonics.—**0**, Folgner, R. ; Schwinner, R. ; Spitz, A., 2, 4, 6 ; Vacek, M. ; **1**, Sander, B.
Trento (Trentino).—**0**, Arthaber, G. v. ; **2**, Canaval, R., 2.
Trenton limestone, United States (E.) —**0**, Clark, T. H. ; Fœrste, A. F., 3–5 ; **2**, Ruedemann, R., 7.
Tretto (Venetia).—**1**, Maddalena, L., 4.
Triarthrus.—**2**, Parks, W. A.
Trias.—**0**, Deecke, W. ; Diener, C., 3.
——, Africa (N.).—**1**, Blayac, J. ; Dalloni, M. ; Ehrmann, F., 2 ; Joleaud, L., 5 ; Savornin, J. ; **2**, Dalloni, M., 6 ; Fourmarier, P., 8 ; Russo, P., 3, 5.
——, Alps (S.).—**2**, Tornquist, A.
——, Angola.—**0**, Robert, M.
——, Ardennes.—**0**, Werveke, L. v., 11.
——, Austria.—**0**, Diener, C., 5 ; Geyer, G., 2, 3 ; Kittl, E., 2. ; Spengler, E., 3, 4 ; Spitz, A., 9 ; **1**, Ampferer, O. ; Grimmer, J. ; Kerner, F. v., 3 ; Pia, J. ; Spengler, E. ; Spitz, A. ; **2**, Ampferer, O., 4 ; Diener, C., 8 ; Holdhaus, K., 1, 2 ; Mylius, H.
——, Baden.—**1**, Abels, J. ; **2**, Wilser, J. L.
——, Bavaria.—**2**, Broili, F., 6 ; Mylius, H.
——, Birmingham area.—**1**, Boulton, W. S.
——, Brandenburg.—**2**, Linstow, O. v., 2.
——, Bristol area.—**1**, Reynolds, S. H.
——, British Columbia.—**1**, Dolmage, V., 2 ; McLearn, F. H., 2.
——, Cardiff area.—**0**, Cox, A. H., 1, 2.
——, Cheshire.—**0**, Greenwood, H. W. ; Hewitt, W., 2 ; Maidwell, F. T.
——, Chile.—**2**, Fritzsche, C. H., 3.
——, Cumberland.—**0**, Smith, B., 2.
——, Dutch E. Indies.—**0**, Abendanon, E. C. ; **1**, Jaworski, E. ; **2**, Brouwer, H. A., 13 ; **2**, Van Es, L. J. C. ; Wanner, J., 3.
——, Elgin.—**0**, Taylor, W. ; **1**, Watson, D. M. S., 4.
——, England.—**0**, Lamplugh, G. W., 2.
——, Europe (Central). — **2**, Petrascheck, W., 3.
——, France.—**0**, Benecke, E. W. ; **1**, Bertrand, L., 6 ; Paréjas, E., 4 ; Termier, P., 5 ; **2**, Paréjas, E. ; Riche, A.
——, French Indo-China.—**0**, Mansuy, H., 8 ; **2**, Dussault, L. ; Jacob, C. ; Mansuy, H., 1, 3, 4, 8–11.
——, Germany (S.). — **1**, Wagner, G.
——, Greece.—**1**, Renz, C., 1, 2.

Trias, Hanover.—**1**, Haack, — ; May, W.
——, Hesse.—**1**, Blanckenhorn, M., 4–6 ; Kaiser, E., 3.
——, Hohenzollern.—**1**, Mueller, H., 2 ; Schmierer, T.
——, Hungary.—**1**, Tæger, H., 2.
——, I. of Man.—**0**, Gregory, J. W., 4.
——, Italy.—**0**, Arthaber, G. v. ; Dal Piaz, G., 2 ; Klebelsberg, R. v., 4 ; Repossi, E. ; Schwinner, R., 3 ; Toni, A. de ; **1**, Airaghi, C., 8, 11 ; Chelussi, I., 4 ; Fucini, A. ; Mariani, E., 1, 3 ; Papp, K. v., 2 ; Pretto, O. de ; Repossi, E., 1, 3, 7 ; Staub, R., 10 ; Winkler, A. ; **2**, Dal Piaz, G., 3 ; Fabiani, R., 5 ; Toni, A. de.
——, Japan.—**0**, Diener, C., 2.
——, Kotelny I.—**0**, Diener, C., 4.
——, Lippe.—**1**, Mestwerdt, A., 4.
——, Maritime Province.—**2**, Liebus, A.
——, Midlands.—**0**, Greenwood, H. W. ; **1**, Ridsdale, H. H.
——, New South Wales.—**0**, Harper, L. F., 4.
——, Pembrokeshire.—**1**, Dixon, E. E. L.
——, Peru.—**2**, Jaworski, E., 2.
——, Poland.—**1**, Pawlica, W.
——, Prussia.—**0**, Freyburg, B. v. ; **1**, Grupe, O. ; Huelsenbeck, B. ; Kuhlmann, L. ; Naumann, E., 4, 11.
——, Rhön.—**1**, Grupe, O., 4.
——, Romania.—**1**, Jekelius, E., 1, 2 ; Pálfy, M. v., 1, 5 ; Vadász, M. E., 2 ; Wachner, H.
——, Scotland (N.W.).—**0**, Lee, G. W.
——, Silesia.—**1**, Michael, R., 2 ; Tietze, O., 7.
——, Slovakia.—**0**, Pia, J. v., 2 ; **1**, Ferenczi, S., 1, 2 ; Kulcsár, K., 2, 3 ; Lóczy, L. v., *fil*, 2 ; Schréter, Z., 2 ; Vigh, J., 2, 3 ; Vitális, S., 2 ; **2**, Dornyay, B.
——, Somerset.—**1**, Greenly, E.
——, S. America.—**2**, Jaworski, E., 4.
——, Spain.—**0**, Palacios, P. ; Wurm, A., 2 ; **1**, Sampelayo, P. H. ; Vilaseca, S. ; **2**, Faura i Sans, M., 2.
——, Switzerland.—**0**, Christ, P. ; Gutzwiller, A. ; Lugeon, M. ; Preiswerk, H. ; Spitz, A., 10 ; Staub, R., 2 ; **1**, Braun, L. ; Lehner, E. ; Leupold, W. ; Mariani, E. ; Rabowski, F. ; Staub, R., 8 ; Swiderski, B. ; **2**, Arbenz, P., 1, 2 ; Deecke, W., 4 ; Mauve, C. C. ; Paréjas, E.
——, Tatra Mts.—**1**, Rabowski, F., 2.
——, Thuringia.—**1**, Adolf, G. ; Kal, kowsky, E., 2 ; Michael, P. ; Naumann, E., 2, 7 ; Weber, K. A. ; **2**, Adolf, G. ; Freyberg, B. v. ; Zimmermann, E., 1.
Trias, Timor archipelago.—**1**, Welter, O. A., 1, 2 ; **2**, Krumbeck, L., 3 ; Welter, O. A.
——, United States.—**0**, Dorsey, G. E. ; Emerson, B. K. ; Knopf, A., 5 ; Mansfield, G. R., 2 ; **1**, Mansfield, G. R. ; Palmer, H. S., 1, 2 ; Rich, J. L., 2 ; **2**, Foye, W. G., 2, 3 ; Longwell, C. R., 2 ; Reeside, J. B., *fil* ; Russell, W. L. ; Wanner, H. E.
——, Westphalia.—**1**, Mestwerdt, A., 3, 4.
——, Württemberg.—**0**, Fraas, E., 2 ; **2**, Bræuhæuser, M.
——, Yugoslavia.—**1**, Hærtel, F. ; Heritsch, F., 6 ; Kerner, F. v. ; Koch, F., 1, 2 ; Poljak, J.
——, Yunnan.—**0**, Brown, J. C., 2 ; Mansuy, H., 8.
——, barium minerals in.—**0**, Greenwood, H. W., 2 ; Richardson, W. A., 2.
——, correlation.—**1**, Jaworski, E. ; **2**, Krumbeck, L., 3.
——, mineral resources in.—**1**, Greenwood, H. W. ; Sherlock, R. L. ; Stevenson, J. J.
——. *See also* Keuper, Permo-Trias, *&c.*
Tribulaun, Mt. (Tyrol).—**0**, Spitz, A., 9 ; **1**, Kerner, F. v., 3.
Triceratops.—**0**, Gilmore, C. W., 3 ; **2**, Pompeckj, J. F., 4.
Tridymite.—**1**, Andersen, O. ; **2**, Billows, E., 2 ; Muegge, O., 5.
——-orthoclase-rock, California.—**2**, Rogers, A. F., 4.
Trient. *See* Trento.
Trieste (Istria).—**0**, Liebus, A.
Triestinbach (Lr. Austria).—**1**, Spitz, A.
Triglyphus.—**2**, Hennig, E., 5.
Trigonia.—**2**, Gillet, — ; Lange, E.
Trigonidæ.—**1**, Packard, E. L., 2.
Trigonite.—**1**, Flink, G. ; Wherry, E. T., 3.
Trilobita.—**0**, Raymond, P. E., 3, 5 ; **1**, Raymond, P. E. ; **2**, Parks, W. A. ; Raymond, P. E., 4 ; Richter, R., 5, 7 ; Ruedemann, R., 2.
——, Cambrian.—**0**, Bassler, R. S. ; Butler, B. S. ; Etheridge, R., *fil* ; Mansuy, H. ; Rothpletz, A. ; **1**, Airaghi, C. ; Howchin, W., 7 ; Walter, O. T. ; **2**, Kiær, J., 5 ; Smetana, V. ; Westergård, A. H.
——, Cambro-Ordovician.—**0**, Holtedahl, O., 5.
——, Carboniferous.—**0**, Butler, B. S. ; Frech, F., 2 ; Holtedahl, O., 3 ; Reed, F. R. C., 2 ; **2**, Morningstar, H.
——, Culm.—**1**, Weigelt, J.
——, Devonian.—**0**, Butler, B. S. ; Dunbar, C. O. ; Reed, F. R. C., 3 ; Richter, R., 2 ; **1**, Dahmer, G., 1, 2 ; Dienst, P. ; Dunbar, C. O. ;

Heritsch, F. ; Hueffner, E., 2 ; Lieber, H. ; Maillieux, E. ; Richter, R., 1, 2 ; Spriestersbach, J. ; Vieetor, W. ; **2**, Greene, G. K. ; Heritsch, F., 3 ; Maillieux, E. ; Mansuy, H., 3, 10 ; Reed, F. R. C., 2 ; Richter, R., 6, 8, 9 ; Shannon, W. G. St. J.

Trilobita, Ordovician. — **0**, Bassler, R. S.; Born, A.; Butler, B. S.; Fœrste, A. F., 6 ; Mitchell, J.; Raymond, P. E., 4 ; Reed, F. R. C. ; **1**, Bekker, H. ; Raymond, P. E., 3 ; **2**, Clark, T. H. ; Greene, G. K. ; Mansuy, H., 3 ; Ulrich, E. O.

——, Palæozoic.—**0**, Holtedahl, O., 6 ; Mansuy, H., 3, 5, 6.

——, Permo-Carboniferous.—**2**, Colani, M.

——, Silurian.—**0**, Frech, F., 2 ; Mitchell, J. ; Reed, F. R. C. ; **1**, Gardiner, C. I. ; **2**, Greene, G. K. ; Perner, J.

——, classification.—**0**, King, W. B. R. ; **2**, Raymond, P. E.

——, N. America.—**2**, Grabau, A. W., 3.

——, Norway.—**0**, Holtedahl, O., 2.

——, Senckenbergisch museum.—**0**, Richter, R.

——, structure.—**2**, Richter, R., 4 ; Walcott, C. D., 2, 3.

Trimpley Ridge (Worcs).—**1**, Anon., 3.

Tring (Herts).—**1**, Barrow, G.

Trinidad.—**0**, Anon., 26, 31 ; **1**, Douvillé, H., 4 ; Milner, H. B., 3 ; **2**, Great Britain, 22 ; Macready, G. A.

Trinidad I. (S. Atlantic).—**0**, Lobo, B.

Trinity I. (Subantarctica).—**2**, Thomas, Herbert H.

Trionyx.—**2**, Teppner, W., 2.

Triplite.—**0**, Shannon, E. V., 12 ; **1**, Zealley, A. E. V. ; **2**, Shannon, E. V., 5.

Tripolitania (N. Afr.).—**1**, Artini, E., 5 ; **2**, Krumbeck, L.

Trittau (Holstein).—**1**, Schlunck, J., 2.

Tritylodon.—**2**, Petronievics, B.

Trivia-horizon.—**2**, Œyen, P. A., 4.

Trochidæ.—**0**, Meli, R., 2.

Trochiliopora.—**0**, Gaster, C. T. A.

Trochiscolithus.—**2**, Kiær, J., 2.

Trocholites.—**1**, Schuh, F.

Trofaiach (Styria).—**0**, Kittl, E., 3.

Troilite.—**2**, Eakle, A. S.

Trompia, Valle (Lombardy).—**0**, Tilmann, N. ; **2**, Buelow, E. U. v., 2.

Tromsø (Norway).—**0**, Vogt, T., 4.

Trona, Kenya.—**2**, Walther, P.

Trondhjem (Norway).—**1**, Carstens, C. W. ; Vogt, J. H. L.

Trondhjemite, Norway.—**2**, Goldschmidt, V. M., 6, 10.

Tropidocoryphe.—**2**, Maillieux, E.

Troughs.—**2**, Lehmann, K.

——, Germany (S.).—**2**, Kranz, W., 9.

Troughs, Triassic, Connecticut. — **2**, Foye, W. G., 3.

——. *See also* Fault-troughs.

Troup (Tex.).—**2**, Merrill, G. P., 5 ; Udden, J. A., 2.

Trumbull (Conn.).—**1**, Shannon, E. V., 5.

Truyère R. (Cantal-Lozère).—**2**, Glangeaud, P., 3.

Tsumeb (S.-W. Afr.).—**2**, Pufahl, O. ; Schneiderhœhn, H.

Tübingen (Württemberg).—**1**, Kessler, P., 2.

Tübingen University museum.—**0**, Hennig, E., 6.

Tufa, Bolivia.—**2**, Lindgren, W., 2.

——, Norway.—**2**, Œyen, P. A., 2.

——, Puglia.—**1**, Dominicis, A. de, 1, 3.

——, Sweden.—**2**, Kurck, C.

——, pollen in.—**2**, Holmsen, G., 2.

——. *See also* Travertine.

Tuff breccia. *See* Breccias.

—— necks, Württemberg.—**1**, Berckhemer, F.

Tuffs, Bohemia.—**0**, Vortisch, W.

——, Carnarvonshire.—**2**, Williams, H.

——, France.—**0**, Kilian, W., 7 ; **1**, Buecking, H.

——, Germany.—**0**, Schottler, W., 2, 3 ; **1**, Græfenkæmper, W.

——, Hungary.—**1**, Schréter, Z., 3, 4.

——, Lazio.—**1**, Cumin, G. ; **2**, Cumin, G., 2.

——, New Zealand.—**1**, Henderson, J.

——, United States.—**0**, Miser, H. D., 2.

——, Victoria.—**0**, Walcott, R. H.

——, basalt-, Austria.—**0**, Jugovics, L. ; **1**, Jugovics, L., 2.

——, ——, Germany. — **0**, Bræuhæuser, M., 2 ; **1**, Blanckenhorn, M., 4, 6 ; Fischer, K. ; **2**, Berns, A.

——, ——, Hungary.—**0**, Jugovics, L. ; **1**, Jugovics, L., 2.

——, ——, Nigeria.—**1**, Mesch, D.

——, ——, Slovakia. — **1**, Kormos, T., 5.

——, ——-ash-, Oldenburg. — **0**, Gagel, C., 4.

——, calcareous, Thuringia. — **0**, Jentzsch, A., 5 ; Werth, E., 3.

——, leucite-, Rheinland.—**2**, Brauns, R., 13.

——, limestone-, Hungary.—**1**, Kormos, T., 7.

——, ——, Silesia. — **0**, Michael, R., 2.

——, porphyritic, Puy-de-Dôme.—**2**, Garde, G.

——, porphyroid-, Nassau.—**0**, Fuchs, A.

——, trachyte-, Rheinland. — **1**, Waterkamp, M.

——. *See also* Pozzolana & Volcanic tuff.

Tuffite. *See* ‘ Wassertuff.’

Tulameen (B.C.).—**0**, Mackenzie, G. C., 3.
Tulcea (Dobrogea).—**2**, Cantuniari, S., 1–3 ; Pascu, R., 5.
Tumuli, Suffolk.—**1**, Moir, J. R.
Tumut (N.S.W.).—**0**, Harper, L. F., 2.
Tungamull (Queensl.). — **0**, Saint-Smith, E. C.
Tungsten.—**1**, Imperial Mineral Resources Bureau, 20 ; **2**, Fleck, H. ; Jones, W. R.
——, Burma.—**0**, Brown, J. C., 4, 5 ; Campbell, J. M.
——, China.—**0**, Anon., 30.
——, New Brunswick.—**0**, Gwillim, J. C., 7.
——, New Zealand.—**0**, Morgan, P. G., 8.
——, Nova Scotia.—**0**, Gwillim, J. C., 8.
——, United States.—**0**, Bastin, E. S. ; Knopf, A., 2 ; United States, 4–6 ; **1**, Shannon, E. V., 5 ; United States, 6 ; **2**, Ferguson, H. G. ; Hess, F. L. ; United States, 8, 10.
——. *See also* Scheelite.
Tungsten minerals.—**0**, Emmons, W. H. ; **1**, Hess, F. L.
Tunis.—**1**, Gentil, L., 4 ; Négris, P., 2 ; **2**, Allemand-Martin, A. ; Joleaud, L., 1, 5 ; Termier, P.
——, geology.—**1**, Joleaud, L., 4, 5 ; **2**, Fourmarier, P., 8.
——, stratigraphy.—**1**, Depéret, C., 2 ; Joleaud, L., 6 ; **2**, Jodot, P.
Tuolluvaara (Sweden).—**2**, Geijer, P., 2.
Turbinolia.—**1**, Vincent, E.
Turin (Piedmont).—**0**, Sacco, F., 2.
Turkestan.—**0**, Distel, L. ; **2**, Muschketow, D. *See also* Aral Sea area.
Turkey.—**0**, Arabu, N. ; Dœlter, C. ; Kirsopp, J. ; Wolff, W., 3. *See also* Sea of Marmara area.
Turkey Creek (W. Austr.).—**1**, Maitland, A. G., 3.
Turnagain (Alaska). — **0**, Capps, S. R.
Turnau (Styria). — **1**, Spengler, E., 2.
Turnerite.—**0**, Kœchlin, R., 2.
Turonian, Bohemia.—**0**, Thuma, F., 3.
——, Denmark.—**1**, Ravn, J. P. J.
——, France (N.E.).—**0**, Cornet, J., 4 ; **1**, Briquet, A., 3.
——, Germany (N.).—**1**, Bœhm, J., 8, 12 ; **2**, Seitz, O., 2.
——, Hainault.—**0**, Cornet, J., 4 ; **2**, Cornet, J., 6.
Turritella-beds, Morocco.—**0**, Russo, P.
Turritellidæ.—**2**, Guillaume, L.
Turritidæ.—**0**, Dall, W. H.
Turtle Mountain Co. (Manit.).—**1**, Dowling, D. B., 5.
'Turtle-*Oreodon* layer,' S. Dakota.—**2**, Sinclair, W. J., 2.
Tuscany (Italy).—**0**, Anon., 27 ; Lencewicz, S., 2 ; Meli, R., 3 ; Pelloux, A. ; Sabatini, V., 2 ; **1**, Feruglio, E. ; Merciai, G., 2 ; **2**, Caterini, F. ; Fossa-Mancini, E., 3 ; Fracassi, G.
—— (——), earthquakes.—**1**, Oddone, E., 2 ; **2**, Monnet, P.
—— (——), ore-deposits.—**2**, Ermisch, K. ; Lohmann, F. ; Trœgel, H.
—— (——), petrology.—**0**, Fossa-Mancini, E. ; **1**, Fossa-Mancini, E., 3 ; Salmojraghi, F., 6.
—— (——), Verrucano.—**0**, Fossa-Mancini, E., 2 ; **1**, Fossa-Mancini, E., 4 ; Fucini, A. ; **2**, Caterini, F., 2 ; Fucini, A., 2.
—— (——). *See also* Elba I. *&* Pianosa I.
Tutuila I. (Samoa).—**0**, Mayor, A. G. ; **1**, Chamberlin, R. T., 2 ; **2**, Davis, W. M., 4.
Tuxtla statuette. — **2**, Washington, H. S., 7.
Twinning, arsenopyrite.—**1**, Smythe, D. D., 2.
——, calcite.—**1**, Mieleitner, K., 4.
——, crystals.—**2**, Kalb, G., 6.
——, felspars. — **0**, Carrasco, E. ; Sabot, R., 3 ; **2**, Schlossmacher, K., 3.
——, hæmatite.—**1**, Becke, F.
——, magnetite.—**2**, Gruehn, A., 2.
——, plagioclase.—**1**, Aloisi, P. ; **2**, Franke, —.
——, quartz.—**2**, Brauns, R., 9 ; Drugman, J. ; Muegge, O., 14.
——, sanidine.—**2**, Brauns, R., 3.
——, staurolite.—**1**, Marchet, A.
Tynemouth (Northumberland).—**0**, Haselhurst, S. R., 1, 2.
Tyrol (Austria).—**0**, Kerner, F. v., 15 ; Nowak, E., 4 ; **1**, Ampferer, O., 3 ; Hammer, W. ; Kerner, F. v., 3 ; **2**, Sander, B.
—— (——), geology.—**0**, Ampferer, O., 3 ; Kerner, F. v., 3 ; Sander, B., 6 ; **1**, Sander, B., 2 ; **2**, Ampferer, O., 6 ; Mylius, H.
—— (——), glaciation.—**0**, Ampferer O., 7 ; Hess, H., 1–4 ; Klebelsberg, R. v., 2, 8, 9 ; Scheufele, W. ; **1**, Mueller, J.
—— (——), igneous & metamorphic rocks.—**0**, Hammer, W., 2, 7, 8 ; **2**, Hammer, W., 2.
—— (——), Mesozoic.—**0**, Ampferer, O., 10 ; Hammer, W., 5 ; Sander, B., 4 ; Spitz, A., 9 ; **2**, Ampferer, O., 5 ; Furlani-Cornelius, M., 1, 2 ; Schœning, F.
—— (——), ore-deposits.—**0**, Hammer, W. ; **1**, Krusch, P. ; **2**, Dittler, E.
—— (——), Quaternary.—**1**, Guerich, G., 3 ; Lepsius, R. ; Penck, A., 4 ; **2**, Ampferer, O., 3 ; Guerich, G. ; Penck, A., 3, 4.

Tyrol (Austria), radioactive springs.—**0**, Bamberger, M.; Kerner, F. v., 1, 13.
—— (——), tectonics.—**0**, Ampferer, O., 1, 4; Kerner, F. v., 17; Lœsch, K. C. v.; Mylius, H.; **2**, Ampferer, O., 2; Leuchs, K., 4.
Tyrone.—**2**, Johnson, T., 1–3.
Tyrrhenian Sea area.—**1**, Fejérvary, G. J. de.
Tysfjord (Norway).—**1**, Rekstad, J.
Tysonite.—**1**, Geijer, P.; Wherry, E. T., 6.
Tyttenhanger (Herts).—**2**, Williams, A. H.

U

Uderwangen (E. Prussia).—**1**, Meyer, E., 2.
Udi (Nigeria).—**0**, Hayes, J. S.
Ueckeritz (Pomerania).—**1**, Keilhack, K.
Uetze (Hanover).—**1**, Stoller, J., 4, 5.
Uganda.—**1**, Simmons, W. C., 1, 2; Wayland, E. J., 2–7, 9, 15–17.
——, geological department. — **1**, Uganda Protectorate.
——, mineral resources.—**1**, Simmons, W. C., 3; Wayland, E. J., 10; **2**, Wayland, E. J., 2.
——, prehistory.—**1**, Moir, J. R., 7; Wayland, E. J., 8.
——, rift-valleys.—**0**, Holmes, A., 3; Stigand, C. H.; **1**, Wayland, E. J., 13.
——, water.—**1**, Wayland, E. J., 11, 12.
——. *See also* Albert, L. area.
Ugogo (Tanganyika).—**2**, Meyer, O. E.
Uhligina.—**2**, Yabe, H., 5.
Uinta area (Utah).—**0**, Schultz, A. R., 2; Winchester, D. E.
Ukraine (Russia).—**2**, Chlebnikow, K. C.; Kaunhowen, F. *See also* Donetz basin *&* Podolia.
Uley (S. Austr.).—**0**, Jack, R. L., 2.
Ullmannite.—**1**, Mieleitner, K., 3.
Ulm (Württemberg).—**0**, Moos, A.; Sauer, A., 5; **2**, Dietrich, W. O., 5; Lutzeier, H.
Ulmaceæ.—**1**, Kræusel, R., 3; **2**, Nagalhard, K.
Ulmite.—**1**, Steel, T.
Ultrabasite.—**1**, Rosický, V.; Wherry, E. T., 7.
Ultra-microscope, crystals &.—**2**, Eitel, W., 2.
Ulu Pahang (F.M.S.).—**1**, Scrivenor, J. B., 3.
Umbria (Italy).—**1**, Oddone, E., 2; **2**, Principi, P., 1, 3.
Umguza valley (S. Rhod.).—**1**, Macgregor, A. M., 3.
Umptek, Mt. area (Kola Penin.).—**1**, Brenner, T.
Umutaoroa (N.Z.).—**2**, Morgan, P. G., 7.
Umzimkulu (Cape Prov.).—**0**, Du Toit, A. L.
Unconformities.—**1**, Goldman, M. I.; Twenhofel, W. H., 2; **2**, Mertie, J. B., *fil*, 4.
——, Carboniferous, Monmouthshire.—**1**, Dixon, E. E. L., 2.
——, Ordovician, Massachusetts.—**0**, Dale, T. N.
——, Palæozoic, Belgium.—**0**, Fourmarier, P., 12.
——, Pre-Cambrian, S. Dakota.—**1**, Runner, J. J.
——, pre-Moenkopi, Colorado plateau.—**0**, Dake, C. L., 2.
——, Tertiary, Wyoming.—**1**, Bowen, C. F.
Underdrag, Great Basin.—**2**, Davis, W. M., 5.
Underground rivers. *See* Rivers.
—— temperatures. *See* Temperatures.
—— water. *See* Water.
Ungulata.—**0**, Troxell, E. L., 2, 3; **1**, Pieragnoli, L.; **2**, Gregory, W. K., 2; Lull, R. S., 2.
——, Eocene.—**0**, Osborn, H. F., 5; **1**, Schlosser, M.; Schrœder, H., 5; Troxell, E. L., 3; **2**, Dietrich, W. O., 9; Roman, F., 2; Schlosser, M., 3; Troxell, E. L., 2–5.
——, Miocene.—**1**, Matsumoto, H.; Stock, C.; Thorpe, M. R., 1, 2; **2**, O'Harra, C. C.; Schlosser, M., 3.
——, Oligocene. — **0**, Blayac, J.; Forster-Cooper, C.; Repelin, J.; **1**, Lull, R. S., 2; Roman, F.; Thorpe, M. R., 4–7; Troxell, E. L., 1, 3, 4; **2**, Borissiak, A.; O'Harra, C. C.; Schlosser, M., 3; Sinclair, W. J., 3–5.
——, Palæogene.—**2**, Thorpe, M. R., 6.
——, Pampean.—**2**, Frenguelli, G., 2.
——, Pleistocene.—**1**, Haughton, S. H.; Lull, R. S., 3; **2**, Battaglia, R.; Boule, M.; Gidley, J. W.; Hay, O. P., 1, 2; Reck, H., 3; Reynolds, S. H., 2; Schlosser, M., 3, 6; Želízko, J. V., 2.
——, Pliocene.—**1**, Stock, C.; Ugolini, R.; **2**, Schlosser, M., 2, 6.
——, Quaternary.—**0**, Passemard, E.; **2**, Airaghi, C.; Fabiani, R., 7; Sevastos, R., 3.
——, Tegelen clays.—**2**, Richarz, P. S., 2.
——, Tertiary.—**0**, Loomis, F. B.; Stock, C., 3; **1**, Kormos, T., 2; **2**, Stromer, E., 5.
——, cave-remains.—**2**, Battaglia, R.
——, reconstruction.—**1**, Thorpe, M. R., 6; **2**, Lull, R. S.
——. *See also* Artiodactyla, Cavicornia, *&c.*
Unicline, the term.—**0**, Grabau, A. W., 10.
Unio.—**2**, Ionescu-Argetoaia, I., 10.

Unionidæ.—**1**, Haas, F., 2 ; Prashad, B. ; Vredenburg, E., 5.
United States, agricultural geology.—**1**, Emerson, F. V.
—— ——, bibliography.—**0**, Nickles, J. M., 1–3.
—— ——, Cretaceous.—**0**, Berry, E. W., 10 ; Clark, W. B., 2.
—— ——, dust-fall.—**2**, Winchell, A. N.
—— ——, geography & geology in.—**1**, Mathews, E. B.
—— ——, geological surveys.—**0**, Merrill, G. P., 7 ; Paige, S. ; United States, 2 ; **1**, Jillson, W. R., 20 ; United States, 11 ; **2**, United States, 2.
—— ——, glass- & moulding-sands. —**0**, Boswell, P. G. H., 2, 5 ; **2**, Boswell, P. G. H., 8.
—— ——, gravity observations.—**2**, Putnam, G. R.
—— ——, gumbotil.—**0**, Kay, G. F., 2.
—— ——, mineral production.—**0**, United States, 3–9 ; **1**, United States, 1–10 ; **2**, United States, 3–13.
—— ——, mineral resources.—**0**, McCaskey, H. D. ; Phalen, W. C., 2 ; Ries, H. ; Schrader, F. C., 2 ; Winchester, D. E., 2 ; **1**, Ashley, G. H., 1, 2 ; Jochamowitz, A. ; Rogers, G. S., 2 ; Stone, R. W. ; **2**, Schultze, E.
—— ——, mineralogy in.—**1**, Kraus, E. H.
—— ——, ore-deposits.—**0**, Emmons, W. H. ; Simmersbach, B. ; **1**, Diller, J. S. ; Harder, E. C., 2 ; Sampelayo, P. H.
—— ——, Palæogene bryozoa.—**0**, Canu, F., 4.
—— ——, Pennsylvanian.—**2**, Moore, R. C., 2.
—— ——, petroleum.—**0**, Grabau, A. W., 2 ; **1**, Frankforter, C. J. ; Thiessen, R., 2.
—— ——, physiography.—**1**, Lobeck, A. K.
—— ——, Pre-Cambrian.—**1**, Steidtmann, E.
—— ——, Quaternary. — **2**, Dachnowski, A. P.
—— ——, Silurian.—**0**, Grabau, A. W., 9.
—— ——, underground temperatures.—**0**, Darton, N. H., 6.
—— ——, water.—**0**, Meinzer, O. E., 4.
—— —— (E.).—**0**, Ashley, G. H., 1, 2.
—— —— (——), changes of level.—**0**, Brown, C. W., 2 ; Daly, R. A., 5 ; Vaughan, T. W., 3.
—— —— (——), oilfield waters.—**0**, Mills, R. Van A., 2.
—— —— (——), soils.—**0**, Wherry, E. T., 5.
United States (E.), Trias.—**0**, Dorsey, G. E.
—— —— (N.E.), ice-caps.—**1**, Daly, R. A. ; **2**, Cook, J. H.
—— —— (——), igneous invasions. —**1**, Barrell, J.
—— —— (——), physiography.—**0**, Lobeck, A. K.
—— —— (S.).—**0**, Vaughan, T. W., 5.
—— —— (S.-Central), salt-deposits. —**1**, Darton, N. H., 2.
—— —— (S.E.), coastal plains.—**1**, Cleland, H. F., 2.
—— —— (——), coral-reefs. — **1**, Vaughan, T. W.
—— —— (——), Tertiary.—**2**, Vaughan, T. W., 3.
—— —— (W.), coal.—**0**, Rogers, G. S., 2.
—— —— (——), Mesozoic.—**0**, Mansfield, G. R., 2 ; **2**, Stanton, T. W., 2.
—— —— (——), palæontology.—**1**, Merriam, J. C., 3.
—— —— (——), Tertiary.—**1**, Clark, B. L., 2, 3 ; **2**, Clark, B. L.
—— ——. *See also* Alabama, Great Basin, *&c.*
UNITED STATES NATIONAL MUSEUM. *See* Museums.
Unterengadin (Graubünden). — **1**, Staub, R., 11.
Untersee area (L. Constance).—**2**, Bœhndel, E.
Unterwalden (Switzerland). — **0**, Christ, P. ; **1**, Arbenz, P., 3.
Upper Austria. — **0**, Geyer, G., 4 ; Spengler, E., 2 ; Spitz, A., 3, 5 ; **1**, Grimmer, J. ; **2**, Cathrein, A. ; Nowak, E., 3.
—— ——, Mesozoic.—**0**, Diener, C., 5 ; Kittl, E., 2 ; Spengler, E., 3 ; **2**, Trauth, F.
Upper Greensand, Bedfordshire.—**0**, Kitchin, F. L., 2.
—— ——, W. England.—**2**, Boswell, P. G. H., 9.
Upper Senegal & Niger (Fr. W. Afr.). —**0**, Hubert, H., 5 ; **1**, Chudeau, R.
Upperud (Sweden).—**2**, Sweden, 2.
Uppland (Sweden).—**2**, Cleve-Euler, A. ; Osvald, H.
Ural Mts.—**0**, Duparc, L., 4, 5 ; **1**, Krusch, P., 4 ; **2**, Posnowa, M. ; Simmersbach, B.
'Uralides,' Europe (E.).—**2**, Kuźniar, C.
Uralitic dolerite. *See* Dolerite.
Uralo-Permian, French Indo-China. —**2**, Mansuy, H., 5, 11.
Uralsk (Siberia).—**2**, Thompson, A. B.
Uraninite.—**0**, Tipper, G. H.
Uranium.—**0**, Johnstone, J. H. L. ; **2**, Fleck, H. ; United States, 8, 10.
——, Colorado.—**0**, Bastin, E. S.
——, Madagascar.—**2**, Muguet, —.

Uranium minerals.—**0**, Emmons, W. H.; Hess, F. L.; Petrascheck, W., 2; **1**, Repossi, E., 8; **2**, Buttgenbach, H., 3.
—— oxides.—**2**, Lebeau, P.
Urcuit (Basses-Pyrénées).—**1**, Lapparent, J. de, 2.
Ure valley (N.Z.).—**0**, Thomson, J. A.
Urgonian, Gard.—**0**, Brun, P. de.
——, Tanganyika.—**0**, Hennig, E., 2.
——, Tatra Mts.—**2**, Passendorfer, E.
Uri (Switzerland).—**0**, Niggli, P., 2; **1**, Lugeon, M., 6.
Urquhart (Elgin).—**0**, Taylor, W.
Ursidæ.—**1**, Merriam, J. C., 2; **2**, Antonius, O.; Pieragnoli, L.
——, Pleistocene.—**0**, Clarke, J. M., 2; Matthew, W. D., 3.
——, Pliocene.—**2**, Andrews, C. W.
——, Quaternary.—**0**, Pieragnoli, L.
——, cave-remains.—**2**, Fabiani, R., 6; Fracassi, G.; Guillarmod, J. J.
Ursus.—**0**, Pieragnoli, L.; **2**, Andrews, C. W.; Fabiani, R., 6; Pieragnoli, L.
Uruguay.—**0**, Walther, K.; **1**, Ameghino, F., 6, 7, 10; **2**, Walther, K., 1–3. *See also* La Plata basin.
Usaramo (Tanganyika).—**2**, Reck, H., 5.
Usch (Poland).—**1**, Cramer, R.
Usses (Haute-Savoie).—**1**, Lugeon, M., 8.
Usu-San volc. (Japan).—**0**, Omori, F., 4.
Utah (U.S.A.).—**0**, Butler, B. S.; Clark, F. R., 2; Gregory, H. E., 2; Lindgren, W., 5; Rogers, A. F., 2; Schultz, A. R., 2; **1**, Field, V. W.; Loughlin, G. F.; **2**, Campbell, M. R.; Newhouse, W. H.
—— (——), mineral resources.—**0**, Clark, F. R.; Condit, D. D., 3; Winchester, D. E.; **1**, Winchester, D. E.; **2**, Bassler, H.
—— (——), ore-deposits.—**0**, Loughlin, G. F.; United States, 4–6, 8; **1**, Kemp, J. F., 2; Olmstead, S. G.; **2**, Hess, F. L.; Pardee, J. T.; United States, 8, 10.
—— (——), physiography. — **0**, Keyes, C. R., 4; **1**, Keyes, C. R., 2.
—— (——), stratigraphy.—**2**, Longwell, C. R., 3; Raymond, P. E., 3; Reeside, J. B., *fil.*
—— (——), water.—**0**, Gregory, H. E.; Grover, N. C., 2–4; Herron, W. H., 2, 4; **2**, Grover, N. C., 1, 2.
Utica beds, Vermont.—**2**, Ruedemann, R., 7.
Utrecht (Natal).—**0**, Humphrey, W. A.

V

Vaage (Norway).—**0**, Werenskiold, W., 3.
Vadose water. *See* Water.
Vágujhely (Slovakia).—**1**, Lóczy, L. v., *fil*, 2.
Val Colla, *&c.* *See* Colla, Val, *&c.*
Valais (Switzerland).—**0**, Lencewicz, S., 1, 4; Sigg, H.; **1**, Boissier, R.; Musy, M., 2; Swiderski, B., 2; **2**, Schmidt, C., 2; Stauffacher, J., 3.
—— (——), geology.—**0**, Collet, L. W., 4; Lugeon, M.; **1**, Oulianov, N.; Swiderski, B.; **2**, Buxtorf, A., 2; Oulianov, N.; Paréjas, E.; Wegmann, E.
—— (——), petrography.—**0**, Gonsalves, M.; **1**, Bartholmès, F.; Koller, P.
—— (——), tectonics.—**0**, Lugeon, M., 3; Oulianov, N., 1, 2.
Valanginian, France.—**1**, Brun, P. de, 2; **2**, Corroy, G., 3.
——, Sumatra.—**2**, Baumberger, E., 2.
Valdepena (Venetia).—**0** & **2**, Toni, A. de.
Valdéz Penin. (Patagonia).—**1**, Rovereto, G., 2.
Valencia (Spain).—**2**, Gignoux, M.; Schlosser, M.
Valentian.—**1**, Jones, O. T.
——, Merioneth.—**1**, Elles, G. L.; **2**, Elles, G. L., 5.
Vallecas (Madrid).—**1**, Obermaier, H.
Valley of Ten Thousand Smokes (Alaska).—**0**, Fenner, C. N.; Shipley, J. W.
Valleys, Austria.—**0**, Spengler, E., 2; **1**, Mueller, J.
——, Belgium.—**1**, Stainier, X., 3.
——, British Columbia.—**0**, Schofield, S. J., 3.
——, Dee R.—**0**, Bremner, A., 3.
——, France (S.).—**0**, Meunier, S., 5; **1**, Kilian, W., 4; Lugeon, M., 5.
——, Germany.—**1**, Gœbel, F., 1, 2; Hess von Wichdorff, H., 2; Mueller, J.; Quaas, A., 6; Tornau, F.; **2**, Lohrmann, E.
——, Italy.—**1**, Ricchieri, G.; **2**, Wepfer, E., 2, 4.
——, New York.—**0**, Chadwick, G. H.
——, New Zealand.—**1**, Adkin, G. L.; **2**, Cotton, C. A.
——, Norway.—**0**, Reusch, H., 5, 7.
——, Switzerland.—**0**, Lencewicz, S., 4; **1**, Beck, P., 2; **2**, Joukowsky, E., 2.
——, dry.—**1**, Bourgeat, F. E., 2; Scheu, E.
——, formation of.—**0**, Sœlch, J.; **1**, Lehmann, O.; Sœlch, J.; **2**, Arldt, T.
——, glaciation &.—**2**, Davis, W. M., 3; Speight, R., 2.
——, pre-glacial, Great Britain.—**0**, Gregory, J. W., 3.
——, ——, Norway.—**1**, Vogt, J. H. L.
——. *See also* Rift-valleys.
Vallorbe (Vaud).—**2**, Nolthenius, A. B. T.
Valmontone (Lazio).—**1**, Cumin, G.

Valpellina (Piedmont).—**0**, Sacco, F., 21 ; **1**, Sacco, F., 5.
Vals (Graubünden).—**0**, Wilckens, O., 8.
Valtellina (Lombardy).—**1**, Cornelius, H. P. ; Craveri, M.
Valvata.—**2**, Favre, J.
Vanadinite, Transvaal.—**1**, Wagner, P. A., 6 ; **2**, Fergusson, M.
Vanadium.—**2**, Anon., 34 ; Fleck, H. ; Great Britain, 19 ; United States, 8, 10 ; Wittich, E., 8.
——, Hesse.—**2**, Krusch, P., 5.
——, Transvaal.—**1**, Ferguson, M.
Vanadium minerals.—**0**, Emmons, W. H.
Vancouver I. (B.C.).—**0**, Cooke, H. C. ; Dolmage, V., 1, 2 ; Mackenzie, G. C. ; **1**, Dolmage, V., 2.
Vanne basin (Yonne).—**1**, Hure, A., 2.
Var (France).—**0**, Guébhard, A., 4 ; Lutaud, L. ; **1**, Haug, E. ; Marty, P. ; Zurcher, P. ; **2**, Pfender, J.
Varallo (Piedmont).—**1**, Ricchieri, G.
Variation-diagrams, mineral composition &.—**2**, Bœke, H. E., 7.
Variolite, Hesse.—**0**, Klemm, G., 8 ; **1**, Muegge, O.
Variscan arcs.—**2**, Born, A., 4.
—— tectonics, Bohemia.—**0**, Kettner, R., 5 ; **2**, Kodym, O., 3.
—— ——, Europe (Central). — **2**, Suess, F. E., 2.
—— ——, Germany. — **1**, Brandes, T. ; Vogel, H., 1, 2.
Värmland (Sweden).—**0**, Sandegren, R.
Varves, New South Wales.—**2**, David, T. W. E., 2.
——, N. America.—**1**, Geer, G. de.
——, Poland.—**2**, Limanovski, M.
Vas (Hungary).—**1**, Jugovics, L., 2 ; Kormos, T., 2.
Vasculares.—**2**, Bugnon, P.
Västerbotten (Sweden).—**1**, Backlund, H. G., 2 ; **2**, Halden, B. E. Quensel, P., 3.
Västerdal (Sweden).—**0**, Olivecrona, H.
Vaterite.—**2**, Reis, O. M.
Vaucluse (France).—**0**, Termier, P. ; **1**, Dollfus, G. F., 4 ; Termier, P., 2, 3, 5 ; **2**, Termier, P., 7 .
Vaud (Switzerland).—**0**, Déverin, L. ; Jeannet, A. ; **1**, Amann, J. ; **2**, Favre, J. ; Guillarmod, J. J. ; Joukowsky, E., 1, 2 ; Lagotala, H.
—— (——), geology.—**0**, Lagotala, H. ; Lugeon, M., 4 ; **1**, Gagnebin, E. ; **2**, Gagnebin, E. ; Nolthenius, A. B. T.
Vaulruz beds, Switzerland.—**1** & **2**, Baumberger, E.
Vegetation, coast-erosion &. — **0**, Roper, I. M.
——, Piedmont.—**2**, Negri, G.
——, potash &.—**2**, Goldschmidt, V. M., 17.
Vegetation, soil acidity &.—**0**, Wherry, E. T., 5, 6.
——, stratigraphy &.—**2**, Drude, O.
Veglia I. (Yugoslavia).—**0**, Oppenheim, P.
Vein-accompaniments, Saxony.—**2**, Trœger, E.
—— -filling, Victoria.—**0**, Lindgren, W., 3 ; **1**, Stillwell, F. L.
—— -gneiss. *See* Gneiss.
—— -rocks.—**2**, Holmquist, P. J.
Veining, in basalt.—**0**, Day, T. C.
Veins, ankerite.—**0**, Berg, G., 2.
——, faulted.—**1**, Quiring, H., 6.
——, in gneiss, Piedmont.—**1**, Sacco, F., 2.
——, gypsum.—**1**, Guébhard, A., 2.
——, lead, Spain.—**1**, Andrimont, R. d'.
——, mineral.—**0**, Taber, S., 3.
——, ——, Alsace.—**0**, Schnæbele, E.
——, ——, Harz.—**2**, Stahl, A.
——, ——, Ontario.—**0**, Coleman, A. P., 3 ; Tyrrell, J. B. ; Whitehead, W. L. ; Whitman, A. R.
——, ——, S.-W. Africa.—**2**, Westphal, H.
——, ore-.—**1**, Stahl, A. ; **2**, Beutell, A., 3.
——, ——, Bohemia. — **0**, Beck, R., 2 ; **1**, Frieser, A.
——, ——, Germany. — **0**, Beck, R., 2 ; **2**, Erdmannsdœrffer, O. H., 3.
——, quartz-.—**0**, Simmersbach, B., 2 ; **1**, Adams, S. F.
——, ——, Alsace. — **0**, Schnæbele, E.
——, ——, Silesia. — **2**, Muehlen, L. v. z., 3.
——, ——, gold, Bohemia. — **2**, Slavík, F.
——, ——, ——, N.W. America.—**2**, McCann, W. S.
——, silver, Norway.—**1**, Bugge, C.
——, sulphide, Cumberland.—**0**, Melmore, S.
Veinstones, Cornwall.—**0**, Davison, E. H., 3 ; **2**, Davison, E. H.
Velardeñite.—**2**, Shannon, E. V., 14.
Velino, Mte. (Abruzzi).—**1**, Chelussi, I., 6.
Vellerat Mts. (Berne).—**1**, Elber, R.
Velopecten.—**0**, Wurm, A.
Veltlin. *See* Valtellina.
Venetia (Italy).—**0**, Battaglia, R. ; Caffaratti, M. ; Fabiani, R. ; Klebelsberg, R. v., 3 ; Pellegrini, G. ; **1**, Gortani, M. ; Taramelli, T., 8 ; **2**, Billows, E. ; Fabiani, R., 5 ; Taramelli, T.
—— (——), geology.—**0**, Boden, K. ; Dal Piaz, G., 2 ; Troll, O. R. v. ; **1**, Pretto, O. de ; Taramelli, T., 7 ; **2**, Dal Piaz, G., 3, 4 ; Fabiani, R., 4 ; Zenari, S.
—— (——), glaciation.—**1**, Desio, A. ; Feruglio, E., 2 ; Sacco, F., 6.

Venetia (Italy), Mesozoic.—**0**, Rodighiero, A.; Toni, A. de; **1**, Pia, J., 2; **2**, Rodighiero, A.; Toni, A. de.

—— (——), petrology.—**1**, Maddalena, L., 1, 3, 4; **2**, Maddalena, L.

—— (——), physiography.—**0**, Gortani, M.; **1**, Taramelli, T., 6; **2**, Feruglio, E.

—— (——), Tertiary.—**0**, Fabiani, R., 4, 5, 7; Stefanini, G., 1, 2; **2**, Dal Piaz, G.; Fabiani, R., 2, 8; Kranz, W.; Oppenheim, P.

—— (——). *See also* Carnic Alps.

Venezia Tridentina (Trentino).—**0**, Sacco, F., 3.

Venezuela.—**0**, Duparc, L., 2; **1**, Jahn, A.; Redfield, A. H.; **2**, Berry, E. W., 15; Collet, L. W.; Reinhard, M.; Schlagintweit, O.

Venn. *See* Hohe Venn.

Vents. *See* Volcanic vents.

Venus.—**0**, Morse, E. S.

Vera Cruz (Mexico).—**2**, Ibarrola, A. M. de; Washington, H. S., 7.

Vercors massif (Isère).—**1**, Corbin, P.; **2**, Corbin, P., 2.

Verespatak (Transylvania).—**1**, Lœw, M.; Pantó, D.

Vermes.—**0**, Price, W. A.; **2**, Benham, W. B.; Howchin, W., 2; Jaworski, E.; Reis, O. M., 3.

——, Cambrian.—**0**, Bassler, R., S.

——, Coal Measures.—**1**, Pruvost, P., 6.

——, Cretaceous.—**0**, Clark, W. B., 2; **1**, Rosenkrantz, A., 2; **2**, Cottreau, J.; Koch, F.; Ravn, J. P. J.; Wade, B.; Wilckens, O., 5.

——, Devonian.—**2**, Galloway, J. J., 3; Reed, F. R. C., 2.

——, Jurassic.—**2**, Behrendsen, O.

——, Ordovician.—**0**, Bassler, R. S.; **2**, Metzger, A. A. T.

——, Silurian.—**0**, Bather, F. A.

——, Trias.—**1**, Jaworski, E.; **2**, Wanner, H. E.

Vermont (U.S.A.).—**0**, Grover, N. C., 3–6; Pierce, C. H.; **1**, Gordon, C. E.; **2**, Covert, C. C.; Keith, A.; Ruedemann, R., 7; Wolff, J. E.

Verna (Tuscany).—**1**, Salmojraghi, F., 6.

Vernagt (Tyrol).—**0**, Hess, H., 1, 3.

Veroli (Lazio).—**1**, Angelis d'Ossat, G. de, 2.

Verona (Venetia).—**0**, Boden, K.; Fabiani, R., 7.

Verrucano.—**1**, Fucini, A.

——, Tuscany. — **0**, Fossa-Mancini, E., 2; **1**, Fossa-Mancini, E., 4; **2**, Caterini, F., 2; Fossa-Mancini, E., 3; Fucini, A., 2.

——, Tyrol.—**1**, Hammer, W.

Vertebrata.—**2**, Hennig, E.; Lebzelter, V.; Watson, D. M. S.

——, cave-remains.—**0**, Bate, D. M. A.

Vertebrata, Cretaceous - Tertiary boundary &.—**1**, Matthew, W. D., 2.

——, evolution. — **2**, Gregory, W. K.

——, museum collections.—**1**, Kormos, T., 4.

——, Quaternary.—**2**, Mandach, E. v.

Vesbite.—**0**, Washington, H. S., 3, 5.

Vesdre R. area (Liége).—**1**, Asselberghs, E., 4; Fourmarier, P., 2.

Vesicles, in rocks.—**0**, Reis, O. M.

Vestergötland (Sweden). — **0**, Ahlmann, H. W.

Vesuvianite.—**1**, Tschermak, G.; **2**, Bierbaum, G.; Quensel, P. *See also* Cyprine.

Vesuvius.—**0**, Malladra, A.; **1**, Mercalli, G., 2; Papp, K. v., 2; **2**, Fiore, O. de, 3, 4; Malladra, A., 1, 2.

——, minerals.—**0**, Cesàro, G.; **1**, Zambonini, F., 3.

Veszelyite.—**0**, Mennell, F. P.

Veszprém (Hungary).—**0**, Jugovics, L.

Vetas series, Bolivia.—**2**, Singewald, J. T., *fil.*

Vézère valley (France).—**2**, Hauser, O.

Vezin (Namur).—**2**, Kaisin, F.

Viborg (Denmark).—**1**, Milthers, V., 8, 9.

Vicarya.—**0**, Martin, K., 3.

Vicenza (Venetia).—**2**, Kranz, W.; Oppenheim, P.

Victoria.—**0**, Chapman, F., 3; Ferguson, W. H., 2, 3 [4]; Lindgren, W., 3; **1**, Harris, W. J.; James, A. V. G.; Junner, N. R.; Stillwell, F. L.; **2**, Chapman, F., 6, 9; Howitt, A. M., 2.

——, annual report.—**0**, Victoria.

——, coal.—**0**, Herman, H., 1, 3; Hunter, S. B.; Victoria, 4; **2**, Herman, H., 3.

——, gold.—**0**, Baragwanath, W., 2–4; Dunn, E. J.; Herman, H., 2; Howitt, A. M., 1, 2; Kenny, J. P. L., 3, 4; Stillwell, F. L.; Whitelaw, H. S., 1–3; **1**, Baragwanath, W.; Junner, N. R., 2; **2**, Baragwanath, W., 2; Easton, J. G., 2; Kenny, J. P. L., 1, 3; Stillwell, F. L., 2, 3.

——, greenstone.—**2**, Ferguson, W. H.; Howitt, A. M.; Kenny, J. P. L., 2.

——, mineral resources.—**0**, Baragwanath, W.; Herman, H., 4; Howitt, A. M., 3; Skeats, E. W., 10; **2**, Anon., 19; Baragwanath, W., 3; Keble, R. A., 1–3; Ower, L. H., 1, 2; Whitelaw, H. S., 2; Whitelaw, O. A. L., 1, 2.

——, molybdenite. — **2**, Baragwanath, W.; Herman, H.; Kenny, J. P. L., 5.

Victoria, ore-deposits.—**0**, Kenny, J. P. L., 1, 2, 5–7 ; Whitelaw, O. A. L. ; **2**, Ferguson, W. H., 3 ; Kenny, J. P. L., 4, 6 ; Whitelaw, H. S.

——, Palæozoic.—**0** & **1**, Teale, E. O. ; **2**, Chapman, F., 7 ; Dunn, J. A., 1, 2 ; Ferguson, W. H., 2.

——, petrology.—**0**, Ferguson, W. H. ; James, A. V. G. ; Ower, L. H. ; Skeats, E. W., 3–5 ; Walcott, R. H. ; **2**, Chapman, F., 8 ; Skeats, E. W.

——, Tertiary.—**1**, Walcott, R. H. ; **2**, Chapman, F., 2, 3 ; Hart, T. S.

——, water.—**0**, Skeats, E. W. ; South Australia, 4 ; Victoria, 2, 3 ; **1**, Victoria.

——, wolfram.—**0**, Herman, H., 2 ; **2**, Easton, J. G. ; Herman, H., 2 ; Howitt, A. M., 3.

Victoria Falls (Rhodesia).—**0**, Spencer, J. W.

Vielgereut (Trentino).—**0**, Klebelsberg, R. v., 5.

Vielsalm (Luxembourg).—**0**, Anten, J., 4.

Vienna Basin.—**0**, Hackl, O., 8 ; **1**, Hassinger, H. ; **2**, Davis, W. M. ; Schumann, R., 2.

Vienna museum.—**0**, Pia, J. v., 3.

Vienne (France).—**2**, Mouret, G., 2.

Vieques Is. (W. Indies).—**0**, Vaughan, T. W., 4.

Viersen (Rheinland).—**1**, Brockmeier, H.

Vigo group, Philippine Is.—**2**, Dickerson, R. E., 1, 3.

Villafranchian, Saône-et-Loire. — **2**, Mayet, L.

Villamaninite.—**0**, Schoeller, W. R.

Villard de Bozel (Savoie).—**0**, Kilian, W., 7.

Villnösstal (Trentino).—**2**, Cornelius, H. P., 8.

Vils (Tyrol).—**2**, Ampferer, O., 2.

Viñales (Cuba).—**0**, Roig, M. S., 2.

VINCI, LEONARDO DA, as geologist.—**2**, Holmes, C. J.

Virgin Is. (W. Indies).—**0**, Vaughan, T. W., 4.

Virginia (U.S.A.).—**0**, Hewett, D. F., 5 ; Holden, R. J. ; Osbon, C. C. ; Raymond, P. E. ; **1**, Wentworth, C. K., 2.

—— (——), water.—**0**, Grover, N. C., 2–5 ; **1**, Grover, N. C., 7 ; **2**, Covert, C. C.

Viridite, Moravia.—**2**, Kretschmer, F., 4.

Visé (Liége).—**1**, Lohest, M.

Vistula R. (Krakow).—**0**, Gœtzinger, G., 2.

Vistula valley (E. Prussia-Poland).—**1**, Jentzsch, A., 4 ; **2**, Limanovski, M.

Vitrain.—**2**, Sinnatt, F. S., 2 ; Stopes, M. C., 1, 2.

Vivianite.—**1**, Shannon, E. V., 8 ; Stansfield, J. ; **2**, Shannon, E. V., 10 ; Stansfield, J.

Vivipara.—**1**, Annandale, N.

Viviparus-shale, Yorkshire.—**2**, Garwood, E. J.

Vizcaya (Spain).—**2**, Veen, R. W. van der.

Vizzola Ticino (Lombardy).—**1**, Salmojraghi, F., 5.

Voblapur (Mysore).—**0**, Jaya Ram, B.

Vogelsberg (Hesse).—**0**, Schottler, W., 4 ; **1**, Kaiser, E., 3, 4 ; Meyer, H. L. F., 5 ; Pfisterer, H. ; **2**, Born, A., 3 ; Wenz, W., 5.

Vogesite, Idaho.—**2**, Shannon, E. V., 2.

——, Portuguese E. Africa. — **1**, Young, R. B.

——, Vosges.—**1**, Buecking, H.

Voglans (Savoie). — **0**, Gorceix, C., 3.

Vogtland (Saxony-Thuringia). — **2**, Doss, B., 3 ; Drude, O.

Volcanic activity.—**2**, Adams, L. H.

—— ——, Hawaii.—**1**, Jaggar, T. A., 2, 3.

—— ——, Italy.—**1**, Riccò, A. ; **2**, Malladra, A., 2.

—— ——, Java.—**2**, Kemmerling, G. L. L., 2.

—— ——, Mexico.—**1**, Waitz, P., 4, 5.

—— ash, Denmark.—**1**, Bœggild, O. B.

—— ——, Mexico.—**2**, Wittich, E., 13, 14.

—— ——. *See also* 'Nuées ardentes.'

Volcanic breccia, Werra valley.—**1**, Naumann, E., 2.

—— dust.—**0**, Harrison, J. B., 2.

—— ——, fall of, N. Atlantic.—**2**, Cole, G. A. J., 5.

—— emanations, Alaska.—**0**, Shipley, J. W.

—— ——, Etna.—**2**, Eredia, F.

Volcanic eruptions, Alaska.—**0**, Fenner, C. N. ; **2**, Fenner, C. N., 2.

—— ——, Antrim.—**2**, Cole, G. A. J., 6.

—— ——, Comoro Is.—**0**, Lacroix, A., 4.

—— ——, Iceland.—**0**, Lacroix, A., 3.

—— ——, Italy.—**0**, Malladra, A. ; **1**, Fiore, O. de ; **2**, Bergeat, A., 5.

—— ——, Japan.—**0**, Davison, C., 2 ; Omori, F., 1, 3.

—— ——, Java.—**0**, Brun, A. ; **2**, Kemmerling, G. L. L.

—— ——, Mexico.—**1**, Waitz, P., 1, 3 ; **2**, Friedlænder, I.

—— ——, Mt. Pelée.—**1**, Mercalli, G.

—— ——, New Hebrides.—**0**, Frater, M. ; Gregory, J. W.

—— ——, Nigeria.—**2**, Anon., 30 ; Cameron, H. S. ; Ruxton, F. H.

Volcanic eruptions, Réunion I.—**1**, Lacroix, A., 2.
—— ——, Mesozoic, Caucasus.—**1**, Bonnet, P., 1, 2.
—— gas.—**0**, Clarke, F. W.; **2**, Ponte, G.
—— ——, Hawaii.—**0**, Shepherd, E. S.
—— glass, Transylvania.—**0**, Szentpétery, S. v., 2.
—— material, Vesuvius.—**2**, Fiore, O. de, 3.
—— necks, Ayrshire.—**0**, Wilson, G. V.
—— ——, Finland (E.).—**1**, Eskola, P., 2.
—— ——, New South Wales.—**1**, Osborne, G. D.
—— pipes, Norway.—**2**, Werenskiold, W.
Volcanic rocks, Antarctica.—**0**, Bodman, G.
—— ——, Auckland.—**2**, Bartrum, J. A.; Morgan, P. G., 13.
—— ——, Dutch E. Indies.—**0**, Abendanon, E. C.; **1**, Reijzer, J.; **2**, Brouwer, H. A., 10.
—— ——, Edinburgh.—**1**, Peach, B. N.
—— ——, Federated Malay States.—**2**, Willbourn, E. S.
—— ——, French Somaliland.—**2**, Dégoutin, M.
—— ——, Germany (W.).—**0**, Schottler, W., 5; **1**, Haardt, W.; Kaiser, E., 3, 4.
—— ——, Hungary.—**1**, Noszky, E., 3; Schréter, Z., 3, 4.
—— ——, Italy.—**0**, Bellini, R.; Boden, K.; Sauer, A.; **1**, Cumin, G.; **2**, Fiore, O. de, 2.
—— ——, Japan.—**0**, Tsuboi, S.
—— ——, Jersey.—**1**, Plymen, G. H., 2, 3.
—— ——, Kenya.—**0**, Parkinson, J., 2.
—— ——, Loyalty Is.—**1**, Lacroix, A.
—— ——, Mexico.—**1**, Wade, W. R.; **2**, Darton, N. H.; Wittich, E., 2.
—— ——, Morocco (Sp.).—**1**, Marín, A., 2.
—— ——, New South Wales.—**0**, Benson, W. N., 2.
—— ——, Nigeria.—**1**, Falconer, J. D., 1, 2.
—— ——, Portuguese E. Africa.—**0**, Holmes, A., 9.
—— ——, Scotland (S.).—**0**, McRobert, R. W.
—— ——, Slovakia.—**1**, Vitális, S.
—— ——, Subantarctica.—**2**, Thomas, Herbert H.; Tyrrell, G. W.
—— ——, Sudan.—**0**, Grabham, G. W.; **1**, Lynes, H.
—— ——, Transylvania.—**1**, Pálfy, M. v., 4, 6.
—— ——, Uganda.—**1**, Wayland, E. J., 7.
Volcanic rocks, United States (W.).—**1**, Ferguson, H. G.; Knopf, A.; Scott, D. B.; **2**, Knopf, A., 2.
—— ——, Victoria.—**2**, Chapman, F., 8.
—— ——, W. Australia.—**1**, Talbot, H. W. B.
—— ——, Yukon.—**1**, Cockfield, W. E.
—— ——, life in.—**1**, Galippe, V.
Volcanic tuff, Tanganyika.—**1**, Branca, W.
—— vents, Ayrshire.—**0**, Tyrrell, G. W.
—— ——, Chile.—**2**, Lindgren, W., 4.
—— ——, Fife.—**0**, Balsillie, D., 1–3.
Volcanism.—**0**, Sacco, F., 34; **1**, Branca, W., 2; Lumbier, M. M.; Washington, H. S., 2; Zeil, G.
——, Africa (E.).—**0**, Ball, J.; Gregory, J. W., 5.
——, Alaska.—**0**, Fenner, C. N.
——, A.-E. Sudan.—**2**, Grabham, G. W.
——, Argentina.—**2**, Gerth, H., 3.
——, Ascension I.—**2**, Daly, R. A.
——, Auckland.—**2**, Ward, G. A.
——, Congo Belge.—**2**, Sharpe, A.
——, Dutch E. Indies.—**0**, Abendanon, E. C.; Brouwer, H. A., 1, 2; Van Es, L. J. C.; **1**, Kemmerling, G. L. L., 2; **2**, Kemmerling, G. L. L., 3.
——, Fiji.—**0**, Davis, W. M., 4; Foye, W. G.
——, France.—**1**, Boisse de Black, Y., 3, 4; Glangeaud, P., 2, 5, 6.
——, Germany (S.).—**0**, Deecke, W., 3; **1**, Grupe, O., 4; **2**, Kranz, W., 6; Reck, H., 4, 6.
——, Hawaii.—**0**, United States; **1**, Cross, W.; Jaggar, T. A.; Washington, H. S., 3; **2**, United States.
——, Italy.—**1**, Fiore, O. de; Papp, K. v., 2; Sabatini, V.; **2**, Fiore, O. de, 4.
——, Jan Mayen I.—**2**, Wordie, J. M., 4, 5.
——, Kenya.—**2**, Gregory, J. W.
——, Linlithgowshire.—**2**, Cadell, H. M.
——, Madagascar.—**2**, Lacroix, A., 2.
——, St. Helena I.—**2**, Daly, R. A.
——, S. Africa.—**1**, Du Toit, A. L., 2, 4; Wagner, P. A., 3.
——, S. Australia.—**2**, Fenner, C. N.
——, Tanganyika.—**0**, Scholz, E.
——, gravimetric observations.—**1**, Kœvestligethy, R. de.
——, lunar.—**0**, Meunier, S., 4.
——, mountain-building &.—**1**, Chamberlin, R. T.; **2**, Ampferer, O.; Rimbach, C.
——, observatories.—**1**, Jaggar, T. A.
——, salt-domes &.—**0**, Golyer, E. de.
——, submarine.—**2**, Born, A., 6; Thoulet, J., 2.

Volcanism, tectonics &.—**0**, Lozinski, W. v., 2 ; **1**, Guébhard, A., 7.
——. *See also* Craters, Fumaroles, *&c.*
Volcanoes.—**0**, Hobbs, W. H. ; **1**, Davison, C., 4 ; **2**, Washington, H. S., 5.
——, Dutch E. Indies.—**0**, Hotz, W. ; Kemmerling, G. L. L., 2 ; **1**, Kemmerling, G. L. L., 2.
——, Edinburgh.—**1**, Peach, B. N.
——, Italy.—**0**, Malladra, A. ; **1**, Lóczy, L. v. ; Papp, K. v., 2.
——, Japan.—**0**, Tsuboi, S.
——, Mexico.—**1**, Waitz, P., 2 ; **2**, Lopez, E.
——, Morocco.—**1**, Russo, P.
——, Nicaragua.—**2**, Sapper, K.
——, Samoa.—**1**, Thomson, J. A.
——, ' shield.'—**2**, Meyer, G.
——. *See also* Mud-volcanoes.
Volga basin.—**1**, Mohr, H., 2.
Volhynia. *See* Wolyn.
Voltaggio (Piedmont).—**0**, Franchi, S., 3.
Voltri (Liguria).—**1**, Franchi, S., 3.
Volturno (Campania).—**2**, Fiore, O. de, 2.
Volviceramus.—**1**, Bœhm, J., 4.
Vonsenite.—**0**, Eakle, A. S.
Vorarlberg (Austria).—**0**, Mylius, H. ; Truempy, D. ; **1**, Mueller, J. ; **2**, Blumer, E. ; Cornelius, H. P., 3, 5 ; Joos, C. H. *See also* Rhätikon.
Voroux-Goreux (Liége).—**0**, Fraipont, C.
Vosges Mts. (France).—**0**, Buecking, H. ; Jessen, O. ; Lory, P. ; Werveke, L. v., 19 ; **1**, Buecking, H. ; Kraus, E. ; **2**, Cousin, G. ; Renck, J. ; Yung, J.
Vulcano I. (Lipari Is.).—**1**, Fiore, O. de, 2 ; Riccò, A. ; **2**, Bergeat, A., 5.
Vulsella.—**2**, Teppner, W.
Vulsinian system.—**1**, Sabatini, V.

W

Wackerfield (Durham).—**1**, Holmes, A., 2.
Wad.—**1**, Bellini, R., 3.
Waiapu (N.Z.).—**2**, Ongley, M., 2.
Waiau-uha R. (N.Z.).—**2**, New Zealand, 18.
Waihi (N.Z.).—**2**, Morgan, P. G., 13.
Waihi R. (N.Z.).—**2**, New Zealand, 21.
Waikaia (N.Z.).—**0**, Donovan, W.
Waikato R. (N.Z.).—**1**, Henderson, J.
Waikato R. area (N.Z.).—**2**, Gilbert, M. J.
Waimakariri R. (N.Z.).—**2**, New Zealand, 16.
Waiotapu (N.Z.).—**2**, Morgan, P. G., 11.
Waipara (N.Z.).—**0**, Thomson, J. A., 5.
Waipara series, New Zealand.—**0**, Speight, R., 3.
Waipatiki (N.Z.).—**2**, Morgan, P. G., 8.
Wairau R. (N.Z.).—**2**, New Zealand, 17.
Waiwera (N.Z.).—**0**, Bartrum, J. A.
Wakkerstroom (Transvaal).—**0**, Humphrey, W. A.
Walchsee (Tyrol).—**2**, Schœning, F.
Waldalgesheim (Rheinland).—**2**, Pohl, H.
Waldeck (Germany).—**1**, Kranz, W., 2.
Waldenburg (Basel).—**0**, Muehlberg, F.
Waldheimat (Styria).—**2**, Stiny, J., 6.
Waldshut (Baden).—**1**, Abels, J.
Wales, coasts.—**2**, Ward, E. M.
——, glaciation.—**0**, Lamplugh, G. W., 3 ; **2**, Gregory, J. W., 8.
——, mineral resources.—**0**, Strahan, A., 3, 4 ; **1**, Greenwood, H. W.
—— (E.), Silurian-Devonian boundary.—**1**, Stamp, L. D., 3.
—— (N.), lead-zinc.—**1**, Smith, B. **2**, Smith, B., 3.
—— (——), Palæozoic.—**1**, Jones, T. A. ; **2**, Elles, G. L., 3.
—— (——), physiography.—**0**, Nicholson, E. D. ; **1**, Ashton, W.
—— (——), slate.—**1**, Hobson, W. D.
—— (S.), coal.—**0**, Great Britain, 5 ; Illingworth, S. R. ; **1**, Illingworth, S. R.
—— (——), iron.—**0**, Kendall, J. D., 2 ; Vivian, S. ; **2**, Atkinson, R. W.
——. *See also* Anglesey, *&c.*
Walhalla (Vict.).—**1**, Junner, N. R.
Walheim (Rheinland).—**1**, Dannenberg, A.
Wallachia (Romania).—**2**, Botez, G., 4 ; Mrazec, L., 6 ; Murgoci, G., 4, 10 ; Popescu-Voiteşti, I., 8 ; Protescu, O., 4 ; Saidel, T., 1, 2 ; Tănăsescu, I., 3.
—— (——), agrogeology.—**2**, Murgoci, G., 1, 2 ; Protopopescu-Pake, E. I., 1–3.
—— (——), geology.—**2**, Ionescu-Argetoaia, I., 2 ; Macovei, G., 9 ; Meruţiu, V. ; Popescu-Voiteşti, I., 2, 3, 7 ; Protescu, O., 1, 2.
—— (——), Tertiary.—**2**, Popescu-Voiteşti, I., 4–6 ; Protescu, O., 5, 6.
—— (——). *See also* Oltenia.
Wallasey (Ches).—**2**, Travis, W. G.
Walloon (Queensl.).—**1**, Reid, J. H.
Walter's Ash (Bucks).—**0**, Sherlock, R. L., 3.
Walton Heath (Surrey).—**1**, Young, G. W.
Wanapitei L. area (Ont.).—**2**, Quirke, T. T., 2.
Wanganui (N.Z.).—**0**, Marshall, P., 5.
Wankie (S. Rhod.).—**1**, Anon., 24.
Wapsipinicon formation, Iowa.—**2**, Norton, W. H.

War, geology &.—**0**, Bærtling, R.; Berkey, C. P., 3; Boswell, P. G. H., 6; Brooks, A. H., 3; Cross, W.; Range, P.; Sacco, F., 8; Salomon, W., 2; Smith, Warren D., 2; Werveke, L. v., 3, 12; **1**, Kranz, W., 3.
——, mineral resources &.—**0**, Hewett, D. F.; Loughlin, G. F., 3; Sacco, F., 16; Shaw, E. W., 3; **2**, Kranz, W., 4.
Warburton (Vict.).—**2**, Howitt, A. M., 3.
Ward (N.Z.).—**2**, Morgan, P. G., 4.
Wardie shales, Edinburgh.—**0**, Tait, D., 2.
Ware (Herts).—**2**, Sherlock, R. L., 3.
Warmbrunn (Silesia).—**1**, Berg, G., 2–4.
Warragamba R. (N.S.W.).—**0**, Harper, L. F., 4.
Warriedar (W. Austr.). — **1**, Feldtmann, F. R., 5.
Warsaw (Poland).—**0**, Lencewicz, S., 3.
Warwickshire.—**0**, Eastwood, T.; **1**, Ridsdale, H. H.; **2**, Richardson, L., 4.
Wasatch formation, Idaho-Wyoming. —**0**, Mansfield, G. R.; **1**, Wegemann, C. H.
Waschberg (Lr. Austria).—**0**, Petrascheck, W.
Wasenweiler (Baden).—**2**, Lais, R.
Washing Bay (Tyrone).—**2**, Johnson, T., 1–3.
Washington (U.S.A.).—**0**, Bretz, J. H.; Pardee, J. T., 4; **1**, Dolman, C. D.; Runner, J. J., 2.
—— (——), ore-deposits.—**0**, United States, 4–6, 8; **2**, Diller, J. S., 2; Pardee, J. T.; Simmersbach, B., 8; United States, 8, 10.
—— (——), water.—**0**, Grover, N. C., 1–4; Herron, W. H.; Schwennesen, A. T., 4; **1**, Grover, N. C., 5, 6.
—— (——). *See also* Columbia valley.
'Wassertuff,' Schleswig-Holstein.—**2**, Wetzel, W., 4.
Water.—**0**, Andrimont, R. d'; **1**, Houel, P.; **2**, Fox, C. S., 2; Kranz, W., 3; Stabler, H.
——, Alaska.—**0**, Canfield, G. H., 1, 2; Waring, G. A.
——, Algeria.—**1**, Savornin, J.
——, Anglesey.—**0**, Greenly, E.
——, Arabia.—**1**, Kober, L.
——, Argentina.—**0**, Rovereto, G.
——, Arizona.—**0**, Bryan, K.
——, Belgium.—**0**, Liége; **1**, Renier, A., 3; **2**, Steenhuis, J. F.
——, Birmingham area.—**0** & **1**, Boulton, W. S.
——, Buckinghamshire.—**0**, Booth, W. H.
——, Canberra.—**1**, Taylor, G.
——, Cape Province.—**0**, Caink, T. G.
Water, Chile.—**1**, Felsch, J.
——, Colorado.—**2**, Headden, W. P., 2.
——, Egypt.—**1**, Hume, W. F., 5.
——, Essex.—**2**, Thresh, J. C.
——, France.—**0**, Dollfus, G. F., 6; Werveke, L. v., 4–6, 20; **1**, Charpiat, R., 3; Dollfus, G. F., 9, 10; Hure, A., 2; King, W. B. R.; **2**, Derône, J.; Kluepfel, W.; Zurcher, P.
——, Germany. — **0**, Lœffler, K.; Steuer, A., 1–3, 5, 7; Wegner, T., 3.
——, Humber basin.—**1** & **2**, Newton, C. B.
——, Hungary.—**0**, Horusitzky, H.; Szontagh, T. v., 3; **1**, Schréter, Z., 5.
——, Idaho.—**1**, Mansfield, G. R.
——, Illinois.—**2**, Shaw, E. W.
——, Iowa.—**0**, Knight, N.; **1**, Morgan, R.; **2**, Arey, M. F., 1, 2; Tilton, J. L., 2, 3.
——, I. of Wight.—**1**, White, H. J. O.
——, Italy.—**0**, Baggi, V.; Caffaratti, M.; Fabiani, R.; Sacco, F., 2, 10, 19, 26; **1**, Craveri, M.
——, Kentucky.—**0**, Fœrste, A. F., 2; Hoeing, J. B., 3; **1**, Fenneman, N. M.
——, Kenya.—**2**, Gregory, J. W.
——, London area.—**0** & **1**, London; **2**, Bromehead, C. E. N.; Dewey, H., 2; Woodward, H. B.
——, Lower Austria.—**0**, Vetters, H., 2.
——, Mexico.—**2**, Paredes, T., 1, 2.
——, Michigan.—**0**, Sherzer, W. H.
——, Minnesota.—**0**, Sardeson, F. W.
——, Missouri.—**0**, Missouri.
——, Morocco (Sp.).—**1**, Lôme, E. D. de; Marín, A.; Valle, A. del.
——, New Jersey.—**0**, **1** & **2**, New Jersey.
——, New Mexico.—**0**, Darton, N. H., 2.
——, New South Wales.—**0**, Jones, L., 3; Morrison, M., 3.
——, New York.—**0**, Shumaker, J. B.
——, Nigeria.—**2**, Migeod, F. W. H.
——, Norfolk.—**2**, Sutton, L.
——, Ohio.—**1**, Fenneman, N. M.; **2**, Hyde, J. E.
——, Pembrokeshire.—**1**, Dixon, E. E. L.
——, Persia.—**1**, Tipper, G. H.
——, Peru.—**2**, García, P.
——, Portugal.—**1**, Lepierre, C.
——, Sahara.—**0**, Guillaume, —.
——, Samoa.—**1**, Thomson, J. A.
——, S. Australia.—**0**, Howchin, W., 5; South Australia, 3; **1**, South Australia.
——, S. Dakota.—**0**, Darton, N. H., 4.
——, S.-W. Africa.—**2**, Kaiser, E., 2.
——, Suffolk.—**1**, Sweeting, R. D.
——, Sussex.—**2**, Thomson, D. H.

Water, Sweden.—**1**, Guinchard, J.

——, Uganda.—**1**, Wayland, E. J., 12.

——, United States (E.).—**0**, Clark, W. B., 3 ; **1**, Bascom, F., 2 ; Hall, B. M.

——, Victoria.—**0**, Victoria, 2 ; **1**, Victoria.

——, W. Australia.—**0** & **1**, Talbot, H. W. B.

——, Yorkshire.—**1**, Haworth, J. ; **2**, Midgley, C.

——, Yugoslavia.—**0**, Kerner, F. v., 12 ; Waagen, L.

——, ammonia in.—**0**, Werveke, L. v., 7.

——, analyses.—**0**, Clarke, F. W. ; Hackl, O., 3.

——, ——, A. E. Sudan.—**1**, Lynes, H.

——, ——, Campania.—**2**, Comanducci, E. ; Piutti, A.

——, ——, England.—**1**, Whitaker, W., 1, 2 ; **2**, Whitaker, W., 2.

——, ——, Europe (Central). — **1**, Emszt, K., 2 ; Horváth, B. v., 2, 3.

——, artesian, Armorican Massif.—**0**, Kerforne, F.

——, ——, Romania.—**2**, Mrazec, L., 6 ; Murgoci, G., 4.

——, ——, W. Australia.—**1**, Maitland, A. G.

——, borings for.—**2**, Kranz, W., 2.

——, chlorine in.—**0**, Vickery, H. B.

——, dissolving limestones.—**2**, Liégeois, R., 2.

——, dunes &.—**0**, Versluys, J.

——, electrolytic action.—**0**, Ramann, E.

——, geochemistry &.—**2**, Campbell, J. M., 2.

——, glacier.—**2**, Arsonval, — d' ; Jentzsch, A.

——, hardness.—**2**, Sutton, L.

——, hygiene.—**2**, Schreiber, K.

——, Ice Age &.—**0**, Howorth, H. H.

——, inclusions of, in amber.—**2**, Dahms, P., 2.

——, ——, in minerals.—**2**, Nacken, R., 3 ; Stoklossa, G.

——, juvenile & vadose.—**0**, Berg, G., 3 ; **2**, Berg, G., 5.

——, mineral, Argentina. — **0**, Ducloux, E. H.

——, ——, Europe.—**2**, Weber, H.

——, ——, France (E.). — **0**, Werveke, L. v., 13, 14 ; **1**, Kilian, W., 7.

——, mountain-pressure &.—**0**, Pollack, V.

——, nitrates in.—**1**, Lepierre, C.

——, oil & gas &.—**0**, Mills, R. Van A., 2 ; **1**, Brown, T. C. ; McCoy, A. W. ; Mills, R. V. A., 1, 2 ; Rich, J. L. ; **2**, Blackwelder, E. ; Bonine, C. A. ; Johnson, R. H. ; Tănăsescu, I., 1, 2.

——, ——, Poland.—**1**, Doliński, J., 2.

Water, oil, gas &, United States.—**0**, Hager, D., 2 ; Neal, R. O. ; Rogers, G. S., 3 ; **1**, Rogers, G. S.

——, porosity of rocks &.—**1**, Kendall, P. F., 2 ; **2**, Kendall, P. F., 4.

——, thermal, Argentina. — **0**, Ducloux, E. H., 2.

——, underground.—**1**, Martel, E. A. ; Ototzky, P. ; **2**, Hug, J. ; Kranz, W., 5 ; Wegner, T.

——, ——, Argentina. — **1**, Bodenbender, G. ; Roth, S.

——, ——, Brabant.—**1**, Halet, F.

——, ——, Buckinghamshire. — **1** Whitaker, W., 2.

——, ——, Chile.—**2**, Felsch, J.

——, ——, Denmark.—**1**, Milthers, V., 2, 7.

——, ——, Dobrogea.—**2**, Macovei, G., 4.

——, ——, England (E.).—**2**, Whitaker, W., 2.

——, ——, France.—**0**, Burwash, E. M., 2 ; Harlé, E.

——, ——, Geneva.—**0**, Boissier, R.

——, ——, Germany.—**1**, Schneider, O. ; **2**, Fliegel, G., 2 ; Steuer, A., 2 ; Wegner, T., 2.

——, ——, Hertfordshire.—**1**, Whitaker, W., 2.

——, ——, Kent.—**2**, Brown, E. O. F.

——, ——, Mexico.—**0**, Camacho, H., 1, 2 ; **1**, Bœse, E.

——, ——, Norfolk.—**1**, Whitaker, W.

——, ——, S. Rhodesia.—**2**, Maufe, H. B.

——, ——, Spain.—**1**, Gavala, J., 2.

——, ——, Surrey.—**0**, Whitaker, W.

——, ——, Tasmania.—**1** & **2**, Nye, P. B.

——, ——, Transvaal.—**2**, Mellor, E. T.

——, ——, United States.—**1**, Clark, W. O. ; Ebert, F. C. ; **2**, Thompson, D. G., 2.

——, ——, Venetia.—**0**, Gortani, M.

——, ——, circulation & percolation. —**0**, Andrimont, R. d', 2 ; **2**, Liégeois, R. ; Questienne, P. ; Standley, A. W. E.

——, ——, divining-rod &.—**1**, Walther, J., 2 ; **2**, Kranz, W., 7.

——, ——, erosion &.—**0**, Zeil, G., 6.

——, ——, estimating supplies.—**0**, Meinzer, O. E., 5 ; **1**, Meinzer, O. E.

——, ——, karsts &.—**0**, Nopcsa, F., 9 ; Savini, P. ; **2**, Wray, D. A.

——, ——, ore-deposits &.—**0**, Emmons, W. H.

——, ——, sea-water &.—**2**, Brown, J. S.

——. *See also* Brine, Hydrolysis, Wells, *&c.*

Water supply, United States.—**0**, Brown, J. S. ; Clark, W. O. ; Darton, N. H., 3 ; Gregory, H. E. ; McGlashan, H. D. ; Meinzer, O. E.,

1–4; Schwennesen, A. T., 1–4; Thompson, D. G.; Waring, G. A., 2–4; **1**, Clark, W. O.; Davenport, R. W.; **2**, Follansbee, R.; Thompson, D. G. *See also* Rivers, flow-gaugings *&* Rivers, profile-surveys.
Waterfalls.—**0**, Spencer, J. W.
——, Niagara.—**0**, Wilckens, O., 6.
——, Norway.—**1**, Holmboe, J., 2.
Watershed, Finland.—**0**, Tolvanen, V.
——, Krakow-Silesia.—**0**, Gœtzinger, G., 2.
——, Württemberg. — **2**, Bræubæuser, M., 2.
Waterville (Kerry).—**0**, Callagan, H. R.
Watten (Nord).—**0**, Dubois, G., 2.
Watton Cliff (Dorset).—**1** & **2**, Buckman, S. S., 3.
Waulsortian, Mayenne.—**2**, Delépine, G.
Wavellite.—**0**, Wherry, E. T.
Waverlian formation, Kentucky.—**0**, Morse, W. C.
Waves. *See* Kumatology, Percussion waves, *&c.*
Wax. *See* Paraffin-wax.
Wayne county (Ohio).—**2**, Conrey, G. W.
Waziristan (N.W. F. Prov.). — **2**, Stuart, M.
Weald.—**0**, Bury, H., 2; Lamplugh, G. W., 2; **1**, Marriott, R. A.
Weald Clay, Surrey.—**2**, Butler, G. W.
Wealden, Bornholm.—**1**, Malling, C.
——, Sussex.—**1**, Abbott, W. J. L.; **2**, Milner, H. B., 3; Woodward, B. B.
Weathering.—**2**, Lang, R., 2, 3, 5.
——, Alps.—**2**, Heim, Albert, 4.
——, E. Indies.—**2**, Lang, R.
——, Germany.—**0**, Klemm, G., 10; **1**, Meyer, H. L. F., 5; Stoye, K.
——, alteration of rocks &.—**2**, Kessler, P., 4.
——, carbonic acid &.—**2**, Ramann, E.
——, mineral resources &.—**0**, Emmons, W. H.; **2**, Meyer, H. L. F., 5.
——, residuum of.—**2**, Fleissner, H.
——, soil-formation &.—**2**, Kessler, P., 3.
Wechsel, Mt. area (Austria).—**1**, Mohr, H.
Weddell Sea (Antarctica).—**2**, Gordon, W. T.; Wordie, J. M., 1, 2.
Wedderburn (Vict.).—**2**, Herman, H., 2.
Wedel (Holstein).—**1**, Wolff, W.
WEGENER's theory.—**0**, Paréjas, E.; Sœrgel, W., 2; **2**, Eckardt, W. R.; Lake, P.; Nœlke, F.; Penck, A.; Roe-Thompson, E. R.; Semper, M.; Wegener, A. *See also* Continental drift.
Weichsel. *See* Vistula.
Weichselia.—**2**, Schlagintweit, O.
Weidenau (Silesia).—**0**, Gœtzinger, G.
Weilburg (Nassau).—**1**, Ahlburg, J.
Weilmünster (Nassau).—**1**, Ahlburg, J., 3.
Weimar (Thuringia).—**0**, Jentzsch, A., 5; Werth, E., 3; **1**, Michael, P.
Weissfluh (Graubünden).—**2**, Arbenz, P.
Weissweiler (Rheinland).—**1**, Dannenberg, A.
Weitendorf (Styria).—**2**, Sigmund, A.
Weizenrodau (Silesia).—**1**, Finckh, L., 1, 2.
Weka Pass (N.Z.).—**0**, Thomson, J. A., 5.
Wekusko, L. area (Manit.).—**1**, Alcock, F. J.
Wellenkalk, Germany.—**0** & **2**, Freyberg, B. v.
Wellington (N.Z.).—**0**, Adkin, G. L., 1, 2; Marshall, P., 5; Thomson, J. A., 2; **1**, Adkin, G. L.; Cotton, C. A.; **2**, Adkin, G. L.; Cotton, C. A.; Morgan, P. G.
Wellington, Mt., area (Vict.).—**1**, Teale, E. O.
Wellington museum (N.Z.).—**2**, New Zealand, 1–5.
Wells, Buckinghamshire.—**1**, Whitaker, W., 2.
——, California.—**1**, Ebert, F. C.
——, Denmark.—**1**, Milthers, V., 2.
——, England (E.).—**2**, Whitaker, W., 2.
——, Hertfordshire. — **1**, Whitaker, W., 2.
——, Norfolk.—**1**, Whitaker, W.
——, Surrey.—**0**, Whitaker, W.
——, artesian.—**2**, Delecourt, J.
——, ——, E. Flanders.—**1**, Halet, F., 3.
——, ——, Italy.—**0**, Sacco, F., 6; **1**, Merciai, G., 2.
Wells (Somerset).—**0**, Reynolds, S. H., 2.
Welwyn (Herts).—**0**, Sherlock, R. L.
Wendisch-Buchholz (Brandenburg).—**1**, Fliegel, G., 3.
Wendover (Bucks).—**2**, Barrow, G., 2.
Wennemen (Westphalia).—**1**, Græfenkæmper, W.
Wensley (Derbysh.).—**1**, Garnett, C. S.
Werden (Rheinland).—**1**, Roth, U.
WERNER, A. G.—**2**, Beck, R., 3.
Wernerite.—**0**, Cesàro, G.
Wernigerode (Prussia).—**0**, Bœhm, J., 7.
Werra valley (Germany).—**1**, Muegge, O.; Naumann, E., 2.
Werre R. area (Germany).—**1**, Stoller, J., 6.
Weser R. area (Germany).—**1**, Grupe, O., 7.
West Bilney (Norfolk).—**0**, Pringle, J.
West Bromwich (Staffs).—**2**, Kay, H.
West Flanders (Belgium).—**1**, Anon., 5; Briquet, A., 2; Leriche, M., 4; Stamp, L. D., 2; Stevens, C.

West Indies.—**0**, Vaughan, T. W., 5; **1**, Vaughan, T. W.; **2**, Milner, H. B., 4; Vaughan, T. W., 3.
—— ——, bibliography.—**0**, Nickles, J. M., 1–3.
—— ——, fauna.—**0**, Matthew, W. D.; **2**, Jackson, R. T.; Vaughan, T. W., 5.
—— ——, troughs.—**0**, **1** & **2**, Taber, S.
—— ——. *See also* Haiti, Leeward Is., *&c.*
West Malling (Kent).—**2**, Bromehead, C. E. N., 4.
West Pilbara (W. Austr.).—**1**, Blatchford, T.
West Point (N.Y.).—**2**, Berkey, C. P.
West Riding (Yorks).—**1**, Hobson, B.
West Virginia (U.S.A.).—**0**, Ashley, G. H., 4; Grover, N. C., 3, 4; Scheffel, E. R.; White, I. C.; **1**, Campbell, M. R.; Grover, N. C., 2; White, I. C.; **2**, Reger, D. B.
Westbury (Bristol area).—**0**, Reynolds, S. H.
Westbury (Wilts).—**2**, Pringle, J.
Western Australia.—**0**, Aurousseau, M.; Talbot, H. W. B.; Walther, J., 2; **1**, Clarke, E. de C.; Feldtmann, F. R., 4; Maitland, A. G., 1, 5, 6; Woolnough, W. G.
—— ——, clays.—**0**, Feldtmann, F. R., 1–4.
—— ——, coal.—**0**, Blatchford, T., 4; Clarke, E. de C., 4, 14; **1**, Clarke, E. de C., 2; **2**, Maitland, A. G.; Wilson, R. C.
—— ——, geological survey.—**0**, Western Australia, 2, 3; **1**, Western Australia, 3; **2**, Western Australia, 3 [2].
—— ——, geology.—**0**, Blatchford, T., 3; Clarke, E. de C., 1, 15; Talbot, H. W. B., 2–4; **1**, Clarke, E. de C., 3; Talbot, H. W. B., 1, 2.
—— ——, gold.—**0**, Clarke, E. de C., 6–13; Feldtmann, F. R., 5; Harris, C. M., 1, 2; Maitland, A. G., 2; **1**, Feldtmann, F. R., 3, 5; Jutson, J. T., 4, 5; **2**, Feldtmann, F. R.
—— ——, manganese.—**0**, Blatchford, T.; **1**, Montgomery, A.; **2**, Wilson, R. C., 2.
—— ——, mineral production.—**0**, Western Australia; **1**, Western Australia, 1, 2; **2**, Western Australia.
—— ——, mineral resources.—**0**, Blatchford, T., 2, 5, 7, 9, 10; Simpson, E. S.; **1**, Feldtmann, F. R., 2; Maitland, A. G., 3; Simpson, E. S.; **2**, Farquharson, R. A., 2; Simpson, E. S., 1, 2; Wilson, R. C., 3.
—— ——, ore-deposits.—**0**, Blatchford, T., 8; Clarke, E. de C., 2, 3; Montgomery, A.; Talbot, H. W. B., 6; **1**, Blatchford, T.; Feldtmann, F. R.; **2**, Feldtmann, F. R., 2; Harris, C. M.
Western Australia, petroleum.—**0**, Clarke, E. de C., 5; Maitland, A. G.; **1**, Maitland, A. G., 2; **2**, Blatchford, T.; Hautpick, E. de, 2; Maitland, A. G., 2.
—— ——, petrology.—**0**, Blatchford, T., 6; Farquaharson, R. A.; Talbot, H. W. B., 5, 7; **1**, Farquharson, R. A.; Maitland, A. G., 4; **2**, Farquharson, R. A.
—— ——, physiography.—**0**, Jutson, J. T., 1, 2; Woolnough, W. G.; **1**, Jutson, J. T., 1–3.
Western hemisphere, plantæ.—**0**, Guppy, H. B.
Westerwald (Prussia).—**1**, Vogel, H.
Westland (N.Z.).—**0**, Farr, C. C.; **2**, Speight, R., 3.
Westmorland.—**1**, Bramall, V.; Butterfield, J. A. *See also* Lake District.
Westphalia (Germany).—**0**, Bærtling, R., 3; **1**, Bærtling, R., 3; Denckmann, A.; Gœbel, F.; Græfenkæmper, W.; Kuhlmann, L.; Mestwerdt, A., 2, 3.
—— (——), Cretaceous.—**0**, Bœhm, J., 4, 8; Kuhlmann, L.; **1**, Bærtling, R., 2, 4; Bœhm, J., 3, 6; Franke, F.
—— (——), Devonian.—**1**, Bærtling, R.; Fuchs, A., 1, 2; Henke, W., 1, 2; Schmidt, W. E., 2; **2**, Winterfeld, F.
—— (——), mineral resources.—**0**, Crooks, H. F.; Margerie, E. de; **1**, Becker, J.; Schmidt, W. E.; **2**, Becker, J.; Bergeat, A., 1, 2.
—— (——), physiography.—**0**, Wegner, T.; **1**, Gœbel, F., 2.; Tietze, O., 3; **2**, Knuth, H.
—— (——), tectonics.—**1**, Haack, W., 3; Kraiss, A.; Meyer, E., 3; Quiring, H., 4.
—— (——), water.—**0**, Wegner, T., 3; **1**, Mestwerdt, A., 4; **2**, Wegner, T., 1, 2.
—— (——). *See also* Siegerland.
Westphalian, Algeria.—**2**, Dussert, D.
——, Glamorgan.—**1**, Davies, D., 1, 2.
Wetterau (Hesse).—**0**, Schottler, W., 3, 6; Steuer, A., 8; **1**, Kaiser, E., 4; **2**, Meyer, H. L. F., 1, 2; Wenz, W., 5.
Wettersteingebirge (Bavaria-Tyrol).—**0**, Ampferer, O., 3; Lœsch, K. C. v.; Mylius, H., 2; **2**, Leuchs, K., 2; Mylius, H.
Weyer (Upper Austria).—**0**, Spitz, A., 5.
Whangarei (N.Z.).—**1**, Ferrar, H. T.; **2**, Ferrar, H. T., 2, 4, 6.
Whangie, The (Stirlingsh.).—**0**, Stark, J.
Wharekuri (N.Z.).—**0**, Uttley, G. H., 2.
Whatatutu (N.Z.).—**1**, Henderson, J., 5.

Whinstone, Linlithgowshire.—**0**, Cadell, H. M., 3.
Whitby (Yorks).—**0**, Sewell, J. T., 1, 2.
White I. (N.Z.).—**2**, Ward, G. A.
White Mts. (N.H.).—**1**, Lane, A. C., 1, 2.
White R. area (U.S.A.).—**2**, O'Harra, C. C.
White River beds, S. Dakota.—**2**, Sinclair, W. J., 2; Wanless, H. R.
Whitemouth R. area (Manit.).—**2**, Johnston, W. A., 2.
Whitfield (Vict.).—**0**, Howitt, A. M., 3.
Wicklow.—**1**, Cole, G. A. J., 2.
Wickwar (Glos).—**1**, Bolton, E.
Wiedlisbach (Berne). — **2**, Wiedenmayer, K.
Wiehl (Rheinland).—**2**, Richter, M., 3.
Wienerwald (Lr. Austria).—**1** & **2**, Friedl, K.
Wier sand, Kentucky.—**0**, Jillson, W. R., 5; **1**, Jillson, W. R., 13.
Wigtownshire. *See* Galloway.
Wiikite.—**2**, Chirvinski, P., 2.
Wilcox group, Mississippi.—**0**, Berry, E. W.
Wildenau (Saxony).—**2**, Doss, B., 2.
Wildhorn (Bernese Alps).—**0**, Lugeon, M.
Wildon (Styria).—**0**, Dreger, J.
Wildstrubel (Bernese Alps).—**0**, Lugeon, M.
Wildungen. *See* Bad Wildungen.
Wilga (W. Austr.).—**1**, Maitland, A. G., 6; **2**, Wilson, R. C.
Willesden Green (Middlesex).—**1**, Wrigley, A.
Williamsonia.—**1**, Krasser, F.
Williamsoniella.—**1**, Edwards, W. N.
Willunga (S. Austr.).—**0**, Winton, L. J.
Wilson's Promontory (Vict.). — **2**, Kenny, J. P. L., 4.
Wiltshire.—**1**, Bradley, A. G.; Varney, W. D.; **2**, Chatwin, C. P.; Gore, C. H.; Pringle, J.; Richardson, L., 5.
Winchelsea (Vict.).—**0**, Herman, H., 3.
'Window,' Graubünden.—**1**, Staub, R., 11.
——, Tauern Mts.—**1**, Kober, L., 2.
Windrow formation, Mississippi valley.—**0**, Thwaites, F. T.; **1**, Thwaites, F. T., 2.
Windsor (N.S.).—**1**, Bell, W. A.
Wingello (N.S.W.).—**2**, Harper, L. F.
Winnipegosis (Manit.).—**2**, Johnston, W. A., 2.
Wirral (Ches).—**0**, Hewitt, W., 4; Jones, T. A., 3.
Wisconsin (U.S.A.).—**0**, Alden, W. C.; United States, 5, 6, 8; **1**, Boericke, W. F.; Thwaites, F. T.; **2**, Aldrich, H. R.; Dake, C. L.; MacClintock, P.; Winchell, A. N.
Wisconsin (U.S.A.), water.—**0**, Grover, N. C., 3–6; Herron, W. H., 5; **2**, Grover, N. C., 4.
Wisconsin ice-sheet, United States (N.E.).—**2**, Cook, J. H.
Wisconsin R. (Wis.).—**2**, MacClintock, P.
Wishaw (Lanarksh.).—**0**, Clough, C. T.
Witbank (Transvaal).—**2**, Wybergh, W. J.
Witherite.—**2**, Bœke, H. E., 3; Samojlov, J.
——, Great Britain.—**2**, Wilson, G. V., 2.
Witwatersrand system, Transvaal.—**2**, Rogers, A. W., 1, 3.
Wochein (Carniola).—**1**, Hærtel, F.
Wodanite.—**2**, Freudenberg, W., 2.
Woëvre-clay, Meuse.—**2**, Hentze, E.
Wolajersee (Carnic Alps).—**0**, Vinassa de Regny, P.
Wolfe R. area (Ont.).—**0**, Cole, L. H., 2.
Wolfenbüttel (Brunswick).—**1**, Harbort, E., 3.
Wolfram.—**1**, Brown, J. C., 3; Gross, R.
——, Alaska.—**2**, Simmersbach, B., 8.
——, Bohemia.—**1**, Frieser, A.
——, Burma.—**0**, Brown, J. C., 1, 4; **2**, Brown, J. C., 2.
——, Cornwall-Devon.—**0**, Davison, E. H., 1, 2.
——, New South Wales.—**0**, Harper, L. F., 8.
——, Queensland.—**0**, Ball, L. C.
——, Tasmania. — **0**, Hitchcock, W. E.
——, United States. — **2**, Simmersbach, B., 8.
——, Victoria.—**0**, Herman, H., 2; Kenny, J. P. L., 2; **2**, Easton, J. G.; Herman, H., 2; Howitt, A. M., 3.
Wolframite, Bohemia.—**2**, Krusch, P., 3.
——, Bolivia.—**0**, Dailey, J. G.; **1**, Brehm, H.
——, Burma.—**0**, Campbell, J. M.
——, Japan.—**0**, Katô, T.
——, Portugal.—**2**, Gagel, C., 4.
——, Saxony.—**2**, Doss, B., 3.
Wolgast (Pomerania).—**1**, Klautzsch, A., 4; Linstow, O. v., 8.
Wollastonite.—**0**, Cesàro, G.; Želízko, J. V., 4.
Wollin (Pomerania).—**1**, Bœhm, J., 8.
Wolmirstedt (Prussia).—**1**, Wieegrs [Wiegers], F., 2.
Wolyn (Poland).—**0**, Gagel, C., 9; **2**, Gagel, C., 5.
Wood, dolomitized.—**0**, Adams, S. F.
——, fossil.—**0**, Kræusel, R.; Sahni, B.; **1**, Stuart, M.
——, ——, Cretaceous.—**1**, Jeffrey, E. C., 2, 3; **2**, Schœnfeld, G., 2.

Wood, fossil, Devonian. — **2**, Hylander, C. J.
——, ——, Jurassic.—**1**, Jeffrey, E. C., 3.
——, ——, Permian.—**2**, Schœnfeld, G., 2.
——, ——, Rhætic.—**0**, Colani, M., 2.
——, ——, Tertiary.—**0**, Colani, M. ; Holden, R. ; **1**, Kræusel, R., 2, 3 ; **2**, Barre, H. du L. de la ; Colani, M., 2 ; Schœnfeld, G., 2.
——, ——, Trias.—**2**, Frentzen, K.,
——, silicified.—**0**, Fritel, P. H., 3 ; **1**, Amann, J., 2 ; Guillarmod, J. J. ; Hilbert, R. ; **2**, Chudeau, R., 2.
——. *See also* Cellulose, Trees, *&c.*
Woodbine sand, Texas.—**2**, Berry, E. W., 16.
Woodburn (N.S.W.).—**2**, Morrison, M., 1, 2.
Wood's Point (Vict.).—**1**, Junner, N. R.
Woolridge Hill (Glos).—**1**, Gray, J. W.
Woolwich beds, London area.—**2**, Bromehead, C. E. N., 3.
Worcester Park (Surrey).—**2**, Wrigley, A., 2.
Worcestershire.—**0**, Gray, J. W. ; **1**, Anon., 2, 3 ; King, W. W. ; Wills, L. J. ; **2**, La Touche, J. *See also* Malvern Hills.
Worms (Hesse).—**2**, Weiler, W.
Worms Heath (Surrey).—**0**, Whitaker, W., 4.
Wulfenite.—**1**, Dittler, E. ; Ehringhaus, A., 2 ; **2**, Dittler, E., 2 ; Guild, F. N.
——, Europe (Central).—**0**, Hammer, W., 6 ; **1**, Krusch, P. ; **2**, Granigg, B. ; Schmidt, C.
Würmian, France.—**0**, Pussenot, C. ; **1**, Hollande, D. ; Kilian, W., 5 ; **2**, Boisse de Black, Y., 3.
Württemberg (Germany).—**0**, Bræuhæuser, M., 2 ; Lœffler, K. ; Pompeckj, J. F., 6 ; **1**, Berckhemer, F. ; Kessler, P., 2 ; Schmidt, M., 4 ; Schmierer, T., 4 ; **2**, Bræuhæuser, M., 2 ; Kessler, P., 5 ; Klæhn, H. ; Schmidt, A.
—— (——), Jurassic.—**0**, Engel, T. ; **1**, Hauff, B. ; Musper, F. ; **2**, Fischer, H.
—— (——), mineral resources.—**0**, Dittus, W. ; **1**, Schmidt, M., 3 ; **2**, Bræuhæuser, M.
—— (——), tectonics.—**1**, Bucher, W. H., 3 ; **2**, Beisswenger, H. ; Kranz, W., 10 ; Stettner, —.
—— (——), Tertiary.—**0**, Moos, A. ; Sauer, A., 5 ; **2**, Dietrich, W. O., 5 ; Lutzeier, H. ; Wenz, W., 4.
—— (——), Trias.—**0**, Fraas, E., 2 ; Gaiser, E. ; Pfeiffer, W. ; Stettner, G. ; Werveke, L. v., 15 ; **2**, Pfeiffer, W., 1, 2 ; Silber, E. ; Stettner, —, 2 ; Weigelin, M.
Wurtzite.—**2**, Beutell, A., 12.
Wurzach (Swabia).—**1**, Dittus, D.
Würzburg (Bavaria).—**2**, Schlagintweit, O., 2.
Wutach R. area (Baden).—**2**, Huebscher, J.
Wuuluman (N.S.W.). — **2**, Morrison, M., 4.
Wyoming (U.S.A.), geology & mineral resources.—**0**, Collier, A. J., 5–7 ; Hancock, E. T., 3, 4 ; Hares, C. J. ; Hewett, D. F., 4 ; Schultz, A. R. ; Wegemann, C. H. ; **1**, Hancock, E. T. ; Schultz, A. R.
—— (——), mineral resources.—**0**, Condit, D. D., 3 ; Jones, E. L., *fil*, 4 ; Lupton, C. T. ; United States, 4–6, 8 ; **1**, Winchester, D. E. ; **2**, United States, 8, 10.
—— (——), stratigraphy.—**0**, Condit, D. D., 1, 2 ; Knight, S. H. ; **1**, Bowen, C. F. ; Wegemann, C. H. ; Wieland, G. R., 2 ; **2**, O'Harra, C. C.
—— (——), tectonics.—**0**, Hewett, D. F., 2 ; **2**, Fath, A. E. ; Thom, W. T., *fil*, 2.
—— (——), water.—**0**, Grover, N. C., 2–4 ; Herron, W. H., 4 ; Meinzer, O. E., 3 ; **1**, Grover, N. C., 3 ; **2**, Follansbee, R. ; Grover, N. C., 1, 5.

X

X-rays, crystal-structure &.—**1**, Mauguin, C. ; Wyckoff, R. W. G., 3 ; **2**, Beckenkamp, J. ; Gross, R., 3 ; Rinne, F., 4.
——, minerals &.—**0**, Aminov, G. ; **1**, Kôzu, S. ; **2**, Aminov, G.
Xanthosiderite.—**2**, Leitmeier, H., 5.
Xanthoxenite.—**1**, Wherry, E. T., 7.
Xenarthra.—**1**, Schulthess, B.
Xenoliths, Argyll.—**0**, Thomas, Herbert H. ; **2**, Thomas, Herbert H., 2.
Xenotime.—**0**, Tipper, G. H., 4 ; **2**, Johnsen, A., 14.
Xiphosura.—**1**, Clarke, J. M., 3 ; **2**, Van Straelen, V., 8.

Y

Y Foel Fras (Carnarvonsh.).—**2**, Silvester, N. L.
Yalgoo (W. Austr.).—**0**, Clarke, E. de C., 11–13 ; Talbot, H. W. B., 5 ; **1**, Feldtmann, F. R., 5.
Yampi Sound (W. Austr.).—**0**, Montgomery, A.
Yangtse R. (China).—**0**, Keilhack, K.
Yangtze valley (China).—**0**, Chatley, H.
Yass (N.S.W.).—**0**, Shearsby, A. J.
Yate (Glos).—**1**, Pringle, J.
Yatton (Somerset).—**1**, Greenly, E., 2.

Yebálica Penin. (Sp. Morocco).—**2**, Navarro, L. F.
Yellow earths, Lazio.—**1**, Angelis d'Ossat, G. de, 2.
Yemen (Arabia).—**2**, Botez, G., 5.
Yeniseisk (Siberia).—**0**, Anon., 28.
Yerington (Nev.).—**0**, Knopf, A., 5.
Yerranderie (N.S.W.).—**2**, Jones, L. J.
Yonne (France).—**0** & **1**, Hure, A., 1, 2.
Yorkshire.—**0**, Wroot, H. E., 2 ; **1**, Bevan, D. W. ; Burrell, W. H. ; Haworth, J. ; Hobson, B. ; Lamplugh, G. W., 2 ; **2**, British Association ; Midgley, C.
——, bibliography.—**1**, Sheppard, T.
——, borings.—**0**, Lamplugh, G. W., 5 ; **2**, Gilligan, A. ; Sheppard, T., 4.
——, Carboniferous.—**0**, Bisat, W. S., 2 ; Butterfield, J. A., 1, 2 ; **2**, Everett, J. H. ; Garwood, E. J., 1, 2 ; Gilligan, A., 3.
——, coasts.—**0**, Sewell, J. T. ; **1**, Petch, T. ; Sheppard, T., 6 ; **2**, Friend, J. N. ; Sheppard, T., 2, 3, 11.
——, geology.—**1**, Marr, J. E. ; **2**, Gregory, E. E. ; Stather, J. W.
——, Millstone Grit.—**0**, Bisat, W. S., 1, 3 ; Gilligan, A. ; **1**, Bisat, W. S., 3.
——, mineral resources.—**0**, Anon., 23 ; Varvill, W. W. ; **2**, Anon., 23 ; Butterfield, J. A. ; Great Britain, 4.
——, prehistory.—**0**, Armstrong, A. L. ; Corbett, H. H. ; **1**, Sheppard, T., 2.
——, Quaternary.—**1**, Lamplugh, G. W. ; **2**, Crofts, W. H. ; Phemister, J. ; Sheppard, T., 5.
——, stratigraphy.—**0**, Lamplugh, G. W., 2 ; Sewell, J. T., 2 ; **1**, Bisat, W. S. ; **2**, Bisat, W. S. ; Stather, J. W., 2.
Yoshioka (Japan).—**2**, Ogura, T., 2.
Ypres (W. Flanders).—**1**, Anon., 5 ; Leriche, M., 4.
Ypresian, Anglo - Franco - Belgian basin.—**1**, Briquet, A. ; Stamp, L. D., 5.
Yttrofluorite.—**2**, Vogt, T.
Yucatan (Mexico).—**2**, Washington, H. S., 2, 10.
Yugoslavia. — **0**, Lóczy, L. v. ; Nopcsa, F., 9 ; **1**, Nopcsa, F., 2 ; Wray, D. A. ; **2**, Wray, D. A., 3.
——, geological survey.—**0**, Tietze, E. E. A., 4, 9, 11.
—— (E.).—**1**, Taramelli, T., 9.
—— (W.).—**2**, Palazzo, L. ; Wray, D. A.
—— (——), bauxite.—**1**, Kerner, F. v. ; **2**, Kerner, F. v., 4.
——. *See also* Bosnia, Serbia, *&c.*
Yukon.—**0** & **1**, Cockfield, W. E., 1, 2 ; **2**, Cockfield, W. E.
Yunnan (China).—**0**, Brown, J. C., 2, 3 ; Mansuy, H., 1, 8 ; **2**, Brown, J. C. ; Colani, M., 2 ; Fromaget, J. ; Mansuy, H., 8.
Yxsjö area (Sweden).—**2**, Lindroth, G. T. ; Zenzén, N., 3.

Z

Zacatecas (Mexico).—**1**, Burckhardt, C.
Zackenzin (Pomerania). — **1**, Menzel, H., 3.
Zaër (Morocco).—**0**, Coëmme, S., 2.
Zalatna (Transylvania).—**1**, Papp, K. v., 3, 4.
Zanthus (W. Austr.).—**0**, Talbot, H. W. B., 3.
Zaragoza (Spain).—**2**, Joly, H., 2.
Zealand (Denmark).—**1**, Anon., 11, 12, 15 ; Jessen, K. ; Milthers, V., 7 ; **2**, Rosenkrantz, A.
Zebedassi (Piedmont).—**1**, Brusoni, A., 1, 2.
Zebedassite.—**1**, Brusoni, A.
Zebio, Mte. (Venetia).—**0**, Troll, O. R. v.
Zebru (Lombardy).—**0**, Spitz, A., 2.
Zechlin (Brandenburg).—**1**, Gagel, C., 5.
Zechstein.—**1**, Meyer, H. L. F., 2, 4 ; **2**, Rózsa, M., 2.
——, Europe (N.-Central).—**1**, Linstow, O. v.
——, Germany.—**0**, Scupin, H. ; **1**, Bœhne, E., 2 ; Dienemann, W. ; Freyberg, B. v. ; Landgræber, W. ; Platt, H. ; Rubach, K. ; Scupin, H., 3 ; Weber, K. A. ; **2**, Gœbel, F. ; Meyer, H. L. F., 2.
Zeilleria.—**1**, Carpentier, A., 8.
Zeilleridæ.—**1**, Rollier, L., 2.
Zell (Lucerne).—**1**, Gerber, E., 6 ; **2**, Studer, T.
Zeolites.—**1**, Lewis, J. V. ; **2**, Billows, E. ; Gossner, B. ; Stoklossa, G. ; Walker, T. L. ; Weigel, O.
Zeuglodontidæ.—**0**, Andrews, C. W., 3.
Ziegenhain (Hesse-Nassau).—**1**, Blanckenhorn, M., 3.
Zillertal (Tyrol).—**0**, Scheufele, W.
Zinc. — **1**, Imperial Mineral Resources Bureau, 21 ; Perrier, C., 3 ; **2**, Stahl, A., 2.
——, Austria.—**0**, Kerner, F. v., 15 ; **2**, Bœhne, E.
——, British Columbia.—**0**, Bancroft, M. F.
——, Canada.—**0**, Canada, 2 ; **1**, Canada, 6.
——, Cardiganshire.—**2**, Jones, O. T.
——, Côtes-du-Nord.—**2**, Kerforne, F. J.
——, England (S.W.).—**1**, Dewey, H.
——, Great Britain.—**1**, Greenwood, H. W.

Zinc, Lake District. — **1** & **2**, Eastwood, T.
——, Montgomeryshire.—**2**, Jones, O. T.
——, New South Wales. — **2**, Andrews, E. C.
——, N.-W. Territories.—**2**, Dawson, C. B.
——, Norway.—**2**, Goldschmidt, V. M.
——, Poland (S.W.). — **0**, Petrascheck, W., 6.
——, Quebec.—**2**, Alcock, F. J.
——, Scotland.—**1**, Wilson, G. V.
——, Shropshire.—**2**, Hall, T. C. F.; Smith, B., 2, 3.
——, Silesia.—**0**, Petrascheck, W., 6.
——, Tasmania.—**0**, Hills, L.
——, United States.—**0**, Emmons, W. H.; Hoeing, J. B., 2; Jones, E. L., *fil*; Loughlin, G. F., 2; Shaw, E. W., 5; United States, 4–6, 8; **1**, Boericke, W. F.; United States, 1, 6, 8; **2**, Ries, H.; United States, 8, 10, 12.
——, Wales (N.).—**1**, Smith, B.; **2**, Smith, B., 3.
——. *See also* Sphalerite.
Zinc carbonate.—**0**, Loughlin, G. F.
—— minerals.—**0**, Emmons, W. H.; Loughlin, G. F., 2; Mennell, F. P.
Zincite.—**1**, Aminov, G.
Zinnowitz (Pomerania).—**1**, Linstow, O. v., 8.
Zinnwaldite.—**1**, Asch, W.
Zircon.—**0**, Schottler, W., 4; **2**, Armstrong, P.; Grengg, R.; Johnsen, A., 14.
Zirconium, Rhodesia.—**1**, Zealley, A. E. V., 4.
Zirconium minerals. — **0**, United States, 5, 9.
Zoagli (Liguria).—**1**, Maddalena, L., 5.
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